
SECTION V.

SUGAR, SIRUP, AND MOLASSES.

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CONTENTS.

	Page.
GENERAL SUMMARY	447-451
Statistics of sugar farms	448
Sugar farms	448
CANE SUGAR	452-464
Nature of the plant	452
History	452
Introduction in Louisiana	452
First successful sugar making in Louisiana	453
Introduction of improved machinery	453
Arrangement of the kettles for sugar making	453
Introduction of the vacuum pan	453
Changes in the sugar industry	454
Slow progress of the industry in Louisiana	454
Preparation of land for growing sugar cane	454
Planting	455
Preparation of seed cane	455
Plant and ratoon cane	455
Introduction of new varieties in Louisiana	455
The sugar industry since the Civil War	455
Introduction of the diffusion process	456
Modern changes in the management of sugar plantations	456
Machinery and methods of modern plantations	457
Purchase of cane and basis of payment therefor	457
Climatic conditions and changes	457
Causes for the short crop of 1899	458
Sugar production in Louisiana and in the tropics	458
General statistics of the sugar industry in Louisiana	459
Sugar in Hawaii	460
History	460
General statistics of the sugar industry in Hawaii	463
SORGHUM CANE	464-465
Introduction and use	464
General statistics	464
SUGAR BEETS	465
MAPLE SUGAR AND SIRUP	466

GENERAL TABLES.

TABLE 1.—Farms reporting sugar cane and products, and the acreage and production of cane in 1899, with averages, by states and territories, by parishes in Louisiana, and by islands in Hawaii, in descending order of acreage	467
TABLE 2.—Farm value of sugar cane and products in 1899, with averages and percentages, by states and territories, by islands in Hawaii, and by parishes in Louisiana, in descending order of value	468
TABLE 3.—Quantity and farm value of sugar, molasses, and sirup made from cane harvested in 1899 on the farms of the makers, with percentages, by states and territories, by islands in Hawaii, and by parishes in Louisiana, in descending order of pounds of sugar made	469
TABLE 4.—Quantity and value of all sugar, molasses, and sirup made on plantations and in factories from sugar cane harvested in 1899, with percentages, by states and territories, by islands in Hawaii, and by parishes in Louisiana, in descending order of pounds of sugar made	470

GENERAL TABLES—Continued.

	Page.
TABLE 5.—Value of sugar and molasses and quantity of molasses and of specified kinds of sugar made by the leading planters and factories from cane harvested in 1898 and 1899.	471
TABLE 6.—Farms reporting sugar cane, and acreage of cane, with percentages, by states and territories, by parishes in Louisiana, and by islands in Hawaii, in descending order of acreage in 1899, summary 1880 to 1900.	472
TABLE 7.—Production of all sugar, molasses, and sirup made from sugar cane, by states and territories, by islands in Hawaii, and by parishes in Louisiana, in descending order of pounds of sugar made in 1899, summary 1880 to 1900.	473
TABLE 8.—Production of sugar, molasses, and sirup made from sugar cane, with percentages, by states, and by parishes in Louisiana, in descending order of pounds of sugar made in 1899, summary 1850 to 1870.	474
TABLE 9.—Acreage, production, value, and per cent of total value of sorghum cane grown, and of sorghum sirup made on farms in 1899, with averages for 1899 and 1889, by states and territories.	475
TABLE 10.—Acreage of sorghum cane grown for sirup making, with percentages, by states and territories, in descending order of acreage in 1899, summary 1890 and 1900.	476
TABLE 11.—Production of sorghum sirup in gallons, with percentages, by states and territories, summary 1860 to 1900.	477
TABLE 12.—Acreage, quantity sold, and receipts from sales of beets grown for sugar making, and specified data as to the manufacture of beet sugar, by states and territories.	478
TABLE 13.—Quantity and value of maple sugar made on farms in 1899, and quantity reported in census years 1850 to 1890, by states and territories.	479
TABLE 14.—Quantity and value of maple sirup made on farms in 1899, and quantity reported in the census years 1860 to 1890, by states and territories.	480
TABLE 15.—Acreage, tons sold, and products, made on farms, of sugar cane and sorghum cane, acreage and tons sold of beets grown for sugar, and production of maple sirup and sugar, in 1899, by counties.	481-494

These facts explain how Hawaii, with only 65,687 acres of cane in 1899, could report a farm value of cane and its products of \$18,762,996, while Louisiana, with 276,966 acres, reported a corresponding value of only \$14,627,282, or, exclusive of the value of cane kept for seed, of \$11,143,649, which is less than two-thirds that of the Hawaiian output. The normal yield of sugar in Louisiana is greater than that of Hawaii, as is shown by the total product of 556,994,942 pounds in 1898, given in Table 5, but in 1899 Hawaii reported 542,098,500 pounds, and Louisiana 319,166,396 pounds, the reduced production for Louisiana being attributable to the causes above mentioned.

Prior to the Civil War all cane grown in the Southern states was converted into sugar or sirup on the plantations growing it, but since that time, especially in Louisiana, the owners of a few large plantations purchase cane from their tenants and from others, which they use in the manufacture of sugar and sirup, in addition to the cane grown by themselves. There have also come into existence a small number of central factories whose proprietors do not raise the raw material, but purchase cane from growers, and sirup from makers, and convert them into sugar.

Table 1 shows the extent of this change in Louisiana where there were 1,038,496 tons of cane sold by growers for sugar making, as against 1,084,858 tons converted into sugar on the plantations. In Texas a considerable proportion of cane was sold, but in other states and in Hawaii only a small portion was sold, as compared with the quantity converted into sugar and sirup on the plantations of the growers.

Of the 181,566 farms in the United States reporting sugar cane in 1899, 160,847, or 88.6 per cent, reported sirup made by them; 18,085, or 10.0 per cent, sold cane, and only 2,819 made sugar. Of those reporting sugar, only a limited number in Louisiana, Hawaii, and Texas made it in any considerable quantities, hence only those states report molasses. The product obtained, other than sugar, is essentially a sirup and not a by-product of sugar making as is the molasses of Hawaii and Louisiana.

The grades of sugar made in the large factories of Hawaii, Louisiana, and Texas are given in Table 5 for both 1898 and 1899. An examination of that table shows that either the planters of Hawaii make no molasses, or that the molasses made has at the present time no commercial value, being quite generally returned to the land as a fertilizer, while in Louisiana there is a market for the greater portion of the molasses at a small price per gallon.

In Hawaii and Texas no sugar is made by the old open-kettle process, but in Louisiana a limited amount is still so made. Of the new process sugar, about the same relative proportion of firsts and seconds is made in Louisiana as in Hawaii.

STATISTICS OF SUGAR FARMS.

Tables 6, 7, and 8 present a comparative summary, 1850 to 1900, of the area and production of sugar, sirup, and molasses, for the states and territories, the leading parishes in Louisiana, and the islands of Hawaii.

For 1900 the figures used are those for the total product from the cane, as these are the only figures which are comparable with those of earlier census years.

In 1880 and 1890 the quantities made on plantations purchasing, as well as growing, cane for sugar making were included in the total for farm production of sugar. A statement of the production of sugar and molasses for 1899, on farms for which no cane was purchased, is given, separately, in Table 3.

Tables 7 and 8, in the figures for the various years, show the temporary results of efforts made to establish the industry of making sugar from cane in a number of states other than Louisiana. The large figures for Tennessee and Missouri in 1860 and 1870, South Carolina in 1870, and Alabama in 1850, all show considerable development of the industry in places where it is now almost abandoned. The Louisiana planters have had as many failures as those of other states, but they have continued sugar making with greater persistence. The special difficulties in the way of establishing the industry in Louisiana are described at length later, and doubtless suggest reasons for the practical abandonment of what was a promising industry in other Southern states in 1850, 1860, and 1870.

SUGAR FARMS.

Of the 5,739,657 farms in the United States, 7,344 derived their principal income from growing sugar cane, sugar beets, sorghum cane, or the making of sugar and molasses therefrom, or from the sap of maple trees.

Of this number, 123 farms were reported in the North Atlantic division. Some of them derived their income from maple sirup, others from the growth and sale of beets for sugar making.

In the South Atlantic states there were 305 sugar farms, more than one-half of which were in Georgia. The greater portion of these derived their income from sugar cane, and the remainder from sorghum cane and its products. In the North Central division there were reports from 1,258 sugar farms, of which 694 were in Michigan, 118 in Missouri, and 99 in Kansas. The greater portion of these farms, as well as a few in the other states of the division, derived their income from the sale of sugar beets, and the remainder from sorghum cane and its products, or from maple sirup and sugar.

In the South Central division there were 4,588 sugar farms, of which 3,870 were in Louisiana, and 264 in Texas. Nearly all the sugar farms in these two states

derived their income from sugar cane and its products, the few remaining derived their income from sorghum cane and its products.

There were 900 sugar farms in the Western division, of which 440 were in Utah and 386 in California. All of these, and the greater number of those in Colorado and Oregon, derived the principal part of their income from the sale of sugar beets, while those in Arizona derived their income largely from sugar cane.

The 170 sugar farms in Hawaii derived their principal income from sugar cane and its products.

The total area included in sugar farms was 2,668,880 acres. The total value of the farm property of these farms was \$150,426,234; the value of land, exclusive of buildings, was \$94,218,164; the value of buildings, \$15,530,795; of implements and machinery, \$33,651,170; and of live stock, \$7,026,105. The total value of the products of 1899 was \$40,804,284. The value of that portion of these products not fed to live stock was

\$39,049,954. This gross income represented 26.0 per cent of the fixed capital of the farms, which includes the value of land, buildings, implements, and live stock. The amounts expended for labor on these farms aggregated \$14,574,356, or 35.7 per cent of their gross income, while the expenditure for fertilizers, \$2,059,202, was much larger than for any equal number of farms of any other character.

The average value of these farms was \$20,483, varying from \$374,757 in Hawaii to \$444 in Virginia. The value of their products varied from \$113,306 per farm in Hawaii to \$96 per farm in Virginia. Their average expenditure for labor was \$1,985 per farm, varying from \$41,011 in Hawaii and \$1,791 in Louisiana to \$4 in Tennessee and \$1 in Arkansas.

A more detailed statement concerning the sugar farms of Louisiana and Hawaii is given in connection with the discussion of the industry in that state and territory.

STATISTICS OF AGRICULTURE.

TABLE I.—NUMBER AND ACREAGE OF SUGAR FARMS AND VALUE OF SPECIFIED FORMS OF FARM PROPERTY,

STATES AND TERRITORIES.	NUMBER OF FARMS.		ACREAGE, JUNE 1, 1900.			VALUE OF FARM PROPERTY, JUNE 1, 1900.				
	Total.	With build-ings.	Total.	Improved.	Per cent im-proved.	Total.	Land and im-provements (except buildings).	Buildings.	Implements and machinery.	Live stock.
1 The United States.....	7,344	6,859	2,668,880	1,082,117	38.7	\$150,426,284	\$94,218,164	\$15,680,795	\$33,651,170	\$7,026,105
2 North Atlantic division.....	123	117	23,802	6,541	27.5	659,819	478,490	116,740	24,100	45,489
3 Maine.....										
4 New Hampshire.....	3	3	297	40	13.5	3,700	1,300	1,850	200	850
5 Vermont.....	45	44	3,691	1,360	36.8	76,730	33,260	24,120	7,190	11,160
6 Massachusetts.....										
7 Rhode Island.....										
8 Connecticut.....										
9 New York.....	51	46	6,907	3,018	43.7	279,240	188,580	60,020	9,990	20,650
10 New Jersey.....										
11 Pennsylvania.....	24	24	12,907	2,123	16.4	301,149	250,850	30,750	6,720	13,320
12 South Atlantic division.....	305	296	47,282	14,806	31.3	387,571	214,700	78,280	25,480	69,101
13 Delaware.....	1	1	60	54	90.0	1,279	700	200	20	359
14 Maryland.....	15	15	2,421	1,578	65.2	59,648	34,390	12,600	4,910	7,748
15 District of Columbia.....										
16 Virginia.....	6	6	195	180	66.7	2,666	1,090	480	100	996
17 West Virginia.....	10	10	777	376	48.4	9,152	5,890	1,260	320	1,742
18 North Carolina.....	23	21	1,368	545	39.8	12,578	6,640	3,570	810	1,658
19 South Carolina.....	19	18	1,850	608	32.9	16,176	8,420	3,620	1,230	2,906
20 Georgia.....	165	161	34,705	9,108	26.2	185,306	89,290	43,190	13,500	39,826
21 Florida.....	66	64	5,906	2,407	40.8	100,766	68,400	13,310	4,590	14,466
22 North Central division.....	1,258	1,088	95,127	67,247	70.7	4,617,783	3,177,000	771,870	180,560	479,353
23 Ohio.....	60	55	3,371	2,216	57.2	215,184	156,940	30,220	8,340	19,684
24 Indiana.....	33	30	1,907	1,506	79.0	80,711	54,480	12,140	4,720	9,371
25 Illinois.....	60	56	5,096	4,172	81.9	428,329	341,240	51,190	11,390	24,509
26 Michigan.....	694	577	37,792	28,102	74.4	2,189,470	1,475,000	433,810	93,270	187,390
27 Wisconsin.....	14	14	1,568	670	42.7	54,876	34,050	12,050	3,940	4,836
28 Minnesota.....	44	39	3,562	2,248	63.1	213,647	145,330	39,110	14,400	20,807
29 Iowa.....	35	30	4,049	3,319	82.0	325,848	242,360	49,690	8,280	25,518
30 Missouri.....	118	115	8,405	5,263	62.6	197,575	131,590	29,120	9,090	27,775
31 North Dakota.....										
32 South Dakota.....										
33 Nebraska.....	101	78	12,339	9,191	74.5	514,300	370,770	64,670	15,320	63,540
34 Kansas.....	99	94	16,538	10,500	63.9	397,843	225,240	55,870	20,810	95,923
35 South Central division.....	4,588	4,369	1,360,795	623,943	45.9	72,827,559	34,693,560	11,295,560	21,882,930	4,955,509
36 Kentucky.....	72	67	4,679	3,073	65.7	100,626	65,360	19,820	4,000	11,446
37 Tennessee.....	85	73	4,546	2,181	48.0	80,875	54,830	11,950	3,100	10,995
38 Alabama.....	137	131	10,329	3,918	37.9	89,073	42,790	19,880	4,300	22,103
39 Mississippi.....	49	44	7,185	2,030	28.3	55,126	29,250	9,630	5,780	10,466
40 Louisiana.....	3,370	3,711	1,209,837	573,630	47.4	70,430,069	33,063,960	11,027,060	21,591,940	4,747,109
41 Texas.....	264	236	103,599	32,121	31.0	1,854,087	1,322,750	152,890	265,950	112,497
42 Oklahoma.....	58	58	14,473	3,895	26.9	153,798	80,840	46,650	4,730	21,578
43 Indian Territory.....	32	32	4,054	2,289	56.5	44,693	21,690	4,680	2,190	10,133
44 Arkansas.....	21	17	2,093	806	38.5	19,212	12,090	3,000	940	3,182
45 Western division.....	900	823	98,757	78,451	79.4	8,224,873	7,115,963	530,710	210,080	368,120
46 Montana.....										
47 Wyoming.....										
48 Colorado.....	50	42	4,821	2,044	42.4	166,079	130,630	19,070	5,810	10,569
49 New Mexico.....	4	4	527	85	16.1	9,452	5,920	880	420	2,232
50 Arizona.....	5	5	880	200	22.7	12,954	10,263	1,230	560	911
51 Utah.....	440	405	16,771	11,474	68.4	1,221,282	811,920	225,180	54,480	129,752
52 Nevada.....										
53 Idaho.....										
54 Washington.....	4	3	3,500	3,240	90.3	146,946	117,800	14,000	5,550	9,596
55 Oregon.....	11	10	3,070	2,088	68.0	125,507	106,070	6,230	4,870	8,337
56 California.....	386	354	69,098	59,320	85.8	6,542,653	5,933,360	264,120	188,450	206,723
57 Alaska.....										
58 Hawaii.....	170	166	1,043,117	241,129	23.1	63,708,629	48,543,391	2,737,685	11,310,020	1,108,533

1 Less than \$1.

CANE SUGAR.¹

NATURE OF THE PLANT.

The cane from which the sugar of Louisiana and Hawaii is made is a member of the large family of grasses, and is known botanically as *saccharum officinarum*. The stalk consists of nodes and internodes generally of 1 to 1½ inches in diameter. The nodes in well-developed cane are from 4 to 6 inches apart, and from the upper side of each springs a clasping leaf, from 3 to 5 feet long, which, as it approaches maturity, recedes from the stalk, and when ripe falls off. The roots of the cane spring from the lower side of the node and are lateral and fibrous, affording but little stability to the stalk in soils wetted by rain. The bud or eye of the cane is found at the base of each internode, and before maturity is protected by the leaf; when fully developed it is about three-eighths of an inch long and one-fourth of an inch wide, and is the source or parent of the new cane. Toward the top, or immature portion of the stalk, the eye is flat, and, although apparently of imperfect powers of germination, produces a perfect and healthy scion. While stalks of cane are used for planting, being the vehicle by which the eye or bud is preserved, it has been demonstrated that true seed is to be found in the pinnacle of flowers which crown the cane stalk. The flower or arrow of the cane resembles the blossom of the sedge, but is sometimes 30 inches high, dust colored, and charged with innumerable winged seeds, nearly all of which are infertile, owing, in all probability, to the long-continued propagation of the plant by means of eyes or cuttings.

HISTORY.

There seems to be sufficient evidence to justify the assertion that the sugar cane is a native of southern Asia. The Chinese claim to have been sugar makers for three thousand years, and while their claim can not be refuted there is no proof that the plant was cultivated in that country as early as in Cochin China and Bengal.

It was at one time supposed that the true seed of the sugar cane was found only in the Eastern Hemisphere, and that the plant must, therefore, have been of Old World origin, but the reasoning was based upon a wrong premise, as cane now produces fertile seed in both hemispheres. After the Crusades the cultivation of cane extended from Asia into Africa and to the islands of the Mediterranean. The Portuguese carried sugar cane to Madeira and the Canaries, and Europe received its supply of sugar for many years from these islands.

¹That portion of this section dealing with the history and the development of the sugar-cane industry in Louisiana was prepared by Mr. Robert Freret of New Orleans, La., who was also instrumental in gathering much of the data of this branch of agriculture.

Columbus on his second voyage carried this plant to new fields of usefulness, when he introduced it into the islands of the Caribbean Sea and Gulf of Mexico. From these islands its course to the Spanish Main and Mexico was speedy, and before the close of the century sugar cane was cultivated in all tropical America. Although there is no evidence of the passage of the sugar cane from either shore of the Pacific to the islands of that ocean, we have the testimony of the earliest European visitors that the plant was found growing luxuriantly on the islands of the mid-Pacific.

INTRODUCTION IN LOUISIANA.

As early as 1751 the Jesuit fathers brought to Louisiana samples of sugar cane for the purpose of adding to the resources of the colony. The canes introduced were of the Bourbon or Malabar variety, now known in Louisiana as "Creole" cane. The original consignments were of small quantities, and were sent as a present by the priests in Hispanola to those of their order in New Orleans, but the small beginning of the Jesuits soon furnished seed cane for a number of fathers living in the neighborhood. At first the prices obtained for the cane stalks precluded the idea of the establishment of works for the extraction of the juice on a sufficiently large scale to justify the expense of machinery for crushing and boiling.

The first sugarhouse equipped with machinery to crush the cane and evaporate the juice was erected by Dutreuil in 1759. The experiment resulted in failure. By degrees, however, mechanics were brought from Santo Domingo and Cuba, sugarhouses were built, and for years the pioneers in the industry struggled with apparently insurmountable difficulties. The sirup would not grain, and instead of the bright yellow crystals, such as were produced in the islands, only a sirupy mass remained as a reward for their labor and expense. Some of the more enterprising planters set up dunder tubs and stills, and converted the sweet juice into what they called tafia, a species of fiery rum, which soon spread its baneful influence among the negroes and Indians of the colony.

After a few years the Spanish governors issued edicts restraining the production of tafia, and, by the time the first legislature of the territory was convened, the manufacture of the distillate had almost ceased. The years passed, and still the manufacture of sugar seemed unattainable, although every effort was made by the farmers and their employees to bring about the desired results. Early in the last decade of the Eighteenth century, although the newly imported Otahaiti cane was brought from Cuba, where it had been introduced as one of the results of the heroic Bligh's efforts, the sugar cane of Louisiana growth was not sufficiently matured to produce crystallizable juice, and the planting

world was casting about for some staple to take the place of the cane, from which so much had been expected.

FIRST SUCCESSFUL SUGAR MAKING IN LOUISIANA.

In 1795, Etienne De Boré announced that he had discovered the process necessary to obtain grained sugar. When the spring of 1796 opened, the area and condition of the cane crop on Sieur De Boré's plantation was the wonder of the neighborhood. When the crop was ready for the mill, the juice was extracted by means of simple crushing machinery, operated by horsepower. The juice obtained was conducted into storage boxes, and thence to a series of kettles for evaporation. The process of sugar boiling was kept up continuously, the sirup being bailed forward from one kettle to another until it was reduced by evaporation to liquid sugar and was ready to be passed from the last kettle to the coolers, after which it was spread out on the floor of the sugarhouse.

The essential change introduced by Sieur De Boré was probably the use of lime or alkali in some form for the purpose of neutralizing the free acids found in cane juice, thus materially assisting the process of granulation. The sugar makers of the West Indies used alkali for this purpose, but endeavored to carefully guard the process. After its introduction into Louisiana the early sugar makers were eager to keep secret the results of their individual experiments in the determination of the proper amount of alkali to be used. This quantity varies with the character of the season in which the cane is grown. In very dry seasons but little alkali is required, while in wet seasons larger quantities are necessary to induce complete granulation. De Boré's success in making sugar on a commercial scale gave new life to the cane-producing industry, and many plantations were soon established.

INTRODUCTION OF IMPROVED MACHINERY.

The first steam-driven mill for crushing cane was erected in 1821. The mill turned by this engine was possibly not more than 36 inches long and 24 inches in diameter, and consisted of three rollers so arranged that two rollers were hung in the side supports or housings at a distance of about 8 inches apart, while the third or top roller, the position of which was regulated by bolts passing down through the housings, was so placed that there might be about three-sixteenths of an inch between the front and top rollers, and with the back and top rollers touching each other. The stalks of cane were introduced between the first and second rolls, and then by a simple device the half-crushed stalks were curved back to the opening between the middle and third rollers and subjected to a second pressure, which extracted a large part of the juice.

ARRANGEMENT OF THE KETTLES FOR SUGAR MAKING.

The juice after leaving the receptacle below the rollers was run through troughs to boxes, where it was stored until needed to replenish the juice in the first kettle.

In the early manufacture of sugar in Louisiana, four evaporation kettles were commonly used, but the advantages of a new system of five kettles, called the "Jamaica train," were so apparent that this arrangement was adopted and in general use until 1840. The kettles were approximately hemispherical in shape, generally of wrought iron, with a wide lip or edge by which they were suspended to the "canal." The canal was the horizontal flue which ran from the furnace to the chimney, so fashioned as to allow the heat from the wood fires to present itself successively to the kettles hung along its course.

The first kettle, which hung directly over the fire, was known as the batterie, the other four, in their order, being the sirup, propre, flambeau, and grande.

In the later years of the open kettle train there were generally two grandes placed across the line of the four other kettles and so arranged that the draft to the chimney passed beneath each of them. In these kettles the entire process of clarification, evaporation, and, in the early years of the industry, the concentration of juice into sugar, was carried on.

Between 1830 and 1840 an improvement upon this method was adopted in some of the larger sugarhouses whereby the kettles were used to transform the juice into sirup, while a separate steam-heated pan or kettle was used to concentrate the sirup into sugar. In France, as late as 1827, the chaudière à bascule, or upsetting kettle, was used over an open fire in the manufacture of beet-root sugar. This apparatus was tried in Louisiana, but never came into general use.

INTRODUCTION OF THE VACUUM PAN.

In 1830, Mr. Thomas Morgan, who is entitled to the honor of being the pioneer in the use of the vacuum pan, erected one of these appliances in his sugarhouse. In 1834 Mr. Valcour Aimé, one of Louisiana's progressive planters, established a Howard vacuum pan in his sugarhouse in St. James parish. He also introduced the use of boneblack as a means of clarifying the sirup, and succeeded in producing a nearly chemically pure white sugar, which he shaped into loaves by the use of molds.

The most important improvement, however, in the methods for converting the juice of the cane into sirup was the invention of Mr. Norbert Rillieux, a native of Louisiana, who conceived the idea that the hot vapor arising from a vessel of boiling cane juice could be used to evaporate the water contained in a second vessel of cane juice. He soon realized that this method could only be made practicable by securing a diminished

atmospheric pressure on the surface of the vessel whose contents it was sought to evaporate by the heat arising from the vapor of a previously and more intensely heated fluid.

After considerable expenditure of money, and much labor in working out the details of this conception, an apparatus embodying Rillieux's ideas was erected, in December, 1845, on a plantation in Plaquemines parish, La., and given a trial. Although it did not at first prove to be the success which had been anticipated, the results were sufficiently promising to bring about a determination to realize, during the next season, all the merits which the inventor and manufacturers claimed for it. The tests made in 1846 proved successful, and laid the foundation for the elaborate system of evaporation now in use wherever capital and intelligence have combined for the making of sugar.

CHANGES IN THE SUGAR INDUSTRY.

The value of the machinery and appliances used in an early sugarhouse employing steam power in Louisiana was possibly \$7,000 or \$8,000, while the output in such an establishment was about 200 tons of coarse brown muscovado sugar for a season's run of four months.

The modern sugarhouse, equipped with Corliss engines, double mills, crusher, and all the latest improved clarifying, evaporating, and concentrating apparatus, is erected at an expense, exclusive of the cost of buildings, of about \$250 for each ton of cane which can be passed through the mills in a day; in other words, the cost of the machinery of a Louisiana sugarhouse competent to crush 1,000 tons in twenty-four hours is about \$250,000.

The early steam sugarhouses produced a quantity of sugar equal in weight to about 2½ per cent of the weight of the cane milled, a ton of cane yielding about 50 pounds of moist sugar. The sugarhouse of the present day averages about 8 per cent, or 160 pounds of sugar to the ton of cane.

In the early days of the industry the only fuel used was wood, of which from three to five cords were consumed in producing 1,000 pounds of moist sugar; to-day 800 pounds of coal are required for an output of 1,000 pounds of fine yellow or white crystallized sugar fit for immediate consumption.

SLOW PROGRESS OF THE INDUSTRY IN LOUISIANA.

An examination of the following table of yearly production shows that until 1860 the growth of the sugar industry in Louisiana was slow compared with the rapid strides made by other agricultural operations in the country.

In the five years immediately preceding the Civil War the entire consumption of sugar in the United States averaged about twice the product of Louisiana. To-day, while the output of Louisiana sugar is about 310,000 tons per annum, the consumption of the country aggregates more than 2,300,000 tons.

Table II shows the annual production of sugar in Louisiana from 1823 to 1860.

TABLE II.—SUGAR PRODUCED IN LOUISIANA FROM 1823 TO 1860.

YEAR.	Long tons.	YEAR.	Long tons.
1823	15,401	1843	51,347
1824	11,807	1844	102,678
1825	15,287	1845	142,723
1826	23,101	1846	70,995
1827	36,450	1847	123,214
1828	45,178	1848	112,961
1829	24,642	1849	120,465
1830	35,931	1850	103,111
1831	37,482	1851	115,197
1832	51,359	1852	164,312
1833	15,401	1853	224,188
1834	35,937	1854	177,349
1835	28,925	1855	118,664
1836	35,927	1856	36,813
1837	59,049	1857	137,516
1838	44,065	1858	185,206
1839	46,257	1859	113,410
1840	71,878	1860	117,431

It will be observed that 224,188 tons, the crop of 1853, was by far the largest up to 1861, while that of 1856 was only 36,813 tons. The light product of the latter year resulted from the inclement winter of 1855-1856, during which period the rains rotted the cane saved for seed, and the alternate freezing and thawing ruined the stubble.

PREPARATION OF LAND FOR GROWING SUGAR CANE.

The cane-growing portion of Louisiana is a very flat country, the slope of the land averaging less than 4 feet, and in many thousands of acres not more than 2 feet, to the mile. In the preparation of land for the cultivation of sugar cane, the ground is usually broken in the fall into lands or beds, from 5½ to 6½ feet wide, a deep water furrow being left between to serve as a drain for the outflow of water after the winter rains. The necessity of great care being observed in the matter of drainage is apparent when it is known that the average annual rainfall is about 50 inches.

Most of the soils of the sugar belt of Louisiana are mixed clay and silt, as the greater part of the land is pure alluvium deposited by the waters of the various streams. The land, which, as a rule, is higher on the bank of the river or bayou, falls away for some distance from the water course, and in consequence, during the period of an overflow, the heavier and coarser sand is first deposited and the lighter particles of sand and silt find their resting places in spots where the current grows sluggish; hence the sandy land is located near the river or bayou and the stiff, clayey lands farther away.

With a heavy rainfall and a retentive soil the necessity for drainage becomes paramount, and the importance of the subject may be appreciated when it is understood that from 15 to 20 per cent of the cost of field labor expended on a well-managed crop is for drainage. Occasionally, after severe storms, large portions of the best plantations will be covered with water for days, owing to the inadequacy of the drainage

equipment. One such rain storm happening at a critical time in the growth period may diminish the size and yield of the cane as much as 25 per cent.

Tile drainage has been tried in the cane fields of Louisiana with but poor results, owing to the fact that the success of this method depends upon a constantly free exit of the water which the tiles have collected. In almost every instance of tile drainage in lower Louisiana the tiles have accumulated silt, owing to the sluggishness of the current brought about by the slow discharge of the recipient canals.

PLANTING.

Planting consists in laying stalks of sugar cane in prepared furrows which run across the field at intervals of from 5 to 7 feet, and in covering the seed cuttings to a depth of from 3 to 6 inches with well pulverized earth. After the earth on top of the seed has been well packed by heavy field rollers, there is nothing further to be done except in the way of cultivation and drainage. Planting is usually done in the spring, although in southern Louisiana it can be done satisfactorily in September, and even through the fall and winter until the end of March.

PREPARATION OF SEED CANE.

Putting up seed is generally commenced about the middle of October. The cane is cut at the ground level and two rows of stalks are thrown into a furrow, the leaves being so distributed as to cover the stalks. The cane furrow is then covered with earth, which is rolled until it is smooth and compact, after which the safety of the seed depends upon thorough drainage.

PLANT AND RATTOON CANE.

Planting, as has been stated, may begin as early as September and is usually completed by the early days of March. The crop which springs from this planting is called "plant cane," and is cut for the mill in November and December. The stumps or ratoons left in the ground will produce the following year about 75 per cent as much cane as the initial crop of plant cane.

INTRODUCTION OF NEW VARIETIES IN LOUISIANA.

Sugar cane is a tropical plant, and must be harvested before cold weather has ruined its essential properties, and the seed cane must be protected from injury during the cold and rainy season. The varieties of cane first planted in Louisiana—the Creole, or Bourbon, and the Otahaiti—were so sensitive to climatic conditions that their cultivation in that state was found to be impracticable.

Mr. John J. Coiron, while on a visit to St. Simon Island, off the coast of Georgia, observed the luxuriant growth of a purple and yellow striped variety of cane,

which in 1814 was brought into Georgia from the island of St. Eustatius, to which it had been imported from Java. This fortunate visit of Mr. Coiron resulted in a determination to procure specimens of the striped cane for his plantation at St. Sophie, a few miles from New Orleans. In 1821 Mr. Coiron secured these samples and the results of his experiments were so satisfactory that in 1825 he imported a quantity of seed plants. From that date the cultivation of sugar cane was placed upon an assured footing.

After Mr. Coiron had shown the value of the newly imported cane, the search for new varieties became constant, several being introduced from Monterey, Mexico, soon after the war. These canes, of a purple variety, supposed to be the Black Java, have developed a degree of hardiness which fits them admirably for cultivation in latitudes several degrees colder than the tropics, and several parishes in the more northern portion of the cane belt of Louisiana have become large producers of sugar through their cultivation.

THE SUGAR INDUSTRY SINCE THE CIVIL WAR.

As a result of the disastrous effects of the Civil War, Louisiana's sugar crop fell from more than 100,000 tons to 5,331 tons in 1864. Owing, however, to the very high prices which prevailed during the latter part of the war, and immediately thereafter, the prospects of great profits induced the Louisiana landowner to make great efforts to restock his plantation with animals and implements, and as a result of this impetus the industry soon revived and the search for better varieties of cane was again instituted.

In 1872 Mr. P. M. La Price went to the Eastern Hemisphere, seeking a variety of cane which might be acclimated to Louisiana. After a long and difficult search he returned, bringing a valuable greenish-yellow cane, which not only stands the rigors of Louisiana winters, but also produces a large per cent of high grade sugar and sirup. In 1877 Mr. Le Duc, then the commissioner of agriculture, introduced the "Zevinga," a Japanese variety, and in 1888 the Experiment Station introduced over 75 varieties.

At the present time the only canes of approved and reliable qualities for cultivation in Louisiana are the "purple" and the "ribbon" (Black Java and Striped Java), and the green cane introduced by Mr. La Price, but great hopes are being built upon the success of the Demarara seedlings, Nos. 74 and 95. The tests in the parish of St. James, made by Mr. H. Tremoulet, of No. 95, a red cane, and No. 74, a green cane, have met with most encouraging results, but a succession of crops and a variety of winter weather will be necessary before a definite opinion as to their availability can be formed. If these canes prove of permanent value, it will be due to the intelligent and persistent exertions of the English

botanists and agricultural chemists of Demarara and the adjacent islands. Animated by the same spirit which prompted the French and German beet-root chemists and field workers, and believing that their methods were correct and that nothing in the way of improvement was to be expected from the continued propagation of cane from the eyes of a parent cane, they determined to discover the unknown germinative powers of the so-called seed. With restricted means, and aided solely by the climate and soil of the tropics, they commenced their labors which were to result in a demonstration of the fertility of the cane seed and the propagation of the new varieties.

Experiments have been carried on at the agricultural station at Audubon Park, New Orleans, and it has been shown that for every 2,000 pounds of stalks of purple cane, the roots, leaves, and tops furnish 1,511 pounds of matter which is very much in the way of the next season's cultivation; the striped cane, however, furnishes only about 1,154 pounds of such waste to every 2,000 pounds of stalks.

Table III gives the analysis of the two varieties of cane generally cultivated in Louisiana.

TABLE III.—ANALYSIS OF SUGAR CANE IN LOUISIANA.

A.—PURPLE CANE.

	Water.	Organic matter.	Ash.	Nitrogen.	Phosphoric acid.	Potash.	Lime.	Per cent of whole plant.	Pounds per ton of stalk.
Roots	74.34	23.321	2.212	0.127	0.072	0.079	0.103	3.84	135
Stalks	79.03	20.357	0.559	0.054	0.052	0.061	0.023	55.97	2,000
Leaves	31.57	15.955	2.890	0.085	0.035	0.083	0.150	24.04	844
Tops	82.05	15.820	1.934	0.190	0.030	0.098	0.100	15.15	532

B.—STRIPED CANE.

	Water.	Organic matter.	Ash.	Nitrogen.	Phosphoric acid.	Potash.	Lime.	Per cent of whole plant.	Pounds per ton of stalk.
Roots	70.60	26.378	2.575	0.147	0.088	0.167	0.095	3.60	113
Stalks	79.01	19.626	0.820	0.044	0.065	0.117	0.029	63.40	2,000
Leaves	31.57	15.609	2.737	0.084	0.030	0.172	0.159	20.80	656
Tops	81.11	16.497	2.190	0.203	0.106	0.134	0.078	12.20	385

INTRODUCTION OF THE DIFFUSION PROCESS.

While mention has been made of the roller mill as the most common form of machinery used for the extraction of the cane juice, it must not be concluded that this is the only form of apparatus which has been used for the purpose.

In 1876 an attempt was made to introduce the diffusion process for the manufacture of cane sugar. The machinery was brought from Germany and was not adapted to the work demanded of it, but the experiment served to illustrate the mechanical differences in the manufacture of sugar from sugar cane and from beet roots. Within a few years, however, the diffusion idea gained such popularity in the planting community that 11 complete diffusion houses were established. At present there are not more than three or four in working condition; the process having become unpopular owing to the fact that the chips were difficult

to remove because of their great weight; moreover, the loss of the bagasse as a fuel element was hardly counterbalanced by the increased yield of sugar.

At this time there is discussion as to the value of the chips or bagasse as a raw material for the production of paper stock. If the use of oil deprives bagasse of its relative value as fuel, and the new machinery converts bagasse into paper stock at no greater cost than is now contemplated, it is possible that diffusion batteries may be the prominent feature of the future.

While the improvements in the culture of sugar cane since 1860 have been most important, the machinery now in use, although still based on the same general line as that of forty years ago, is so much more efficient in its general characteristics as to strength and size as to render comparisons almost ridiculous.

An important improvement in the Louisiana sugar-house was the installment of wagon scales at the cane sheds, upon which every load of cane could be weighed. This innovation afforded the means whereby the suspicious or ignorant cultivator could be convinced that he was receiving his due.

MODERN CHANGES IN THE MANAGEMENT OF SUGAR PLANTATIONS.

One of the most noticeable changes in the management of sugar estates is the growing tendency to buy everything used on the plantation. In the earlier days of this industry but few articles were purchased. Aside from iron for kettles and sundry forge purposes, almost everything was homemade.

The manufacture of sugar to-day is unattended by many of the accessories which formerly made the rolling season the merriest part of the year. The work was hard and incessant, each able-bodied man on the plantation, free or bond, being expected to bear his part for eighteen hours out of the twenty-four; the fires under the steam boilers and kettles were continuous from midnight on Sunday until midnight on Saturday; every muscle was urged to its utmost, and yet every one on the plantation was glad when the sugarhouse was opened and the tall chimney smoked.

The preliminary step toward sugar making was the cutting and hauling of the cane for a couple of days before the fires were lighted. The teams were allotted to the most skillful teamsters, and the strongest men were appointed as loaders. The able-bodied men and women were supplied with cane knives, and when the cutting began each took a row and began to shear away the leaves which still adhered to the stalks of cane, and with one deft blow cut off the top "at the last red joint." The cutter then severed the cane at the earth level and threw the stalk on the "heap row" at his side. This work was the easiest of any done on the plantation, the use of the keen knives being more a matter of skill than of onerous labor.

At the summons of the overseer the loaders and teamsters lifted the cane from the heap row into the wagon or cart. In the olden days all the cane was taken to the sugarhouse in wagons or carts, but later the Cuban plan of tramway transportation was adopted on all the larger plantations, and the cane is now transferred from the wagon to the tram car and quickly taken to the sugarhouse.

This forced activity was chiefly due to the scarcity of labor. During the rolling season the average wage of 75 cents per diem during the planting and cultivating season rose to a dollar with rations, or a dollar and a quarter without. The primitive machinery which formerly struggled for three or four months with a crop has been supplanted by a complicated and powerful apparatus which in sixty days reduces twice as much cane as formerly came to the sugarhouse. In 1850, 1,490 sugarhouses were required to handle a crop of less than 154,000 tons; in 1900, 281 sugarhouses made over 325,000 tons of sugar.

MACHINERY AND METHODS OF MODERN PLANTATIONS.

In the well-appointed sugarhouse of to-day, the most important and expensive machinery consists of the double or triple mill and engine. A crusher to prepare the cane for the mill, driven by a separate engine, completes the milling apparatus. From the mill the juice flows to the sulphur machine, where sulphurous gas is injected into the sticky stream for the purpose of bleaching and rendering it antiseptic.

In the tropics cane juice begins to turn acid in less than thirty minutes after it leaves the mill. The antiseptic properties of sulphurous gas are of value even in Louisiana, where decomposition is less rapid.

From the sulphur machine the juice passes to the clarifiers or defecators, where, under a gentle heat and lime, the grosser and insoluble impurities are separated. Thence it goes to the double or triple effects, where the clear juice is boiled at a reduced temperature, consequent upon a reduced atmospheric pressure, until it becomes sirup. As soon as settled and cooled, it is transferred to the vacuum strike pan, where the process of sugar boiling continues until the operator determines that he has extracted from the sirup the largest quantity of crystals of first jet that it is capable of rendering.

To the mixer, a semicylindrical vessel large enough to hold the contents of the vacuum pan, in which moving arms or paddles mix the contents constantly, is the next step in the process; thence to the centrifugal machines, from which the sugar is delivered ready for immediate consumption. The centrifugal machine consists of a vertical shaft making about 1,200 revolutions per minute, provided at its lower extremity with a metallic basket, in which the sugar and molasses, or masse cuite, coming from the mixer is washed with

water during its rapid revolutions until, by centrifugal force, the sugar is freed from the molasses, which escapes through the fine woven wire that forms part of the basket.

The molasses flies from the periphery of the basket in the outer casing and goes to tanks, where a sufficient quantity is collected to enable the sugar maker to boil a strike of second sugar. Second sugar, the result of the boiling of the molasses which escapes from the first sugar, requires several days for granulation, but after passing through the mixer and centrifugals a fair article of sugar results, somewhat similar to the muscovado made in the West Indies and in Louisiana fifty years ago.

Up to 1860 almost every sugarhouse equipped with a vacuum pan was fitted to use boneblack as a clarifying or refining agent, an article no longer used in the state. The use of sulphurous gas has enabled a reasonably white or choice yellow sugar to be made directly from the cane, a thing the pioneers in the industry thought impossible.

PURCHASE OF CANE AND BASIS OF PAYMENT THEREFOR.

In the antebellum days the universal custom was for each planter to make the sugar from his own cane. The business was profitable, and the purchasing of cane by one planter from another was unknown.

During the war many sugarhouses were more or less damaged, and at its close the average planter was without means to grow cane or to reduce it to sugar. The plan was devised of making a partial separation of the industry, by which a few planters or central factories should reduce to sugar the cane grown by a much larger number of planters. The introduction of such a system involved many difficulties, owing to the varying percentages of sugar content in cane grown on different plantations or in different years. The first arrangement between cane growers and mill operators was to allow the cane grower one-half the sugar made from his crop. Later a system of purchasing cane was arranged which supplanted this share system of reduction, the cane grower being paid, for cane delivered, a sliding scale of prices per ton, which varied with the price of prime yellow clarified sugar in New Orleans. The usual price for a ton of cane is 80 pounds of such sugar—one-half the probable yield of that quantity of cane.

CLIMATIC CONDITIONS AND CHANGES.

It is considered essential that there should be a full average rainfall, properly distributed throughout the year, to produce liberal crops of cane; but as the records show a range from 36.5 inches to 83 inches, the climatic variations are, in reality, very great, and without facilities for irrigation, during abnormally hot and

dry springs and summers, there must be, necessarily, a wide range in the quantities of cane produced per acre.

At one time it was supposed that the hygrometric condition of the atmosphere was an important factor in the growth and richness of the cane; and although its importance has deteriorated in the eyes of the skilled agricultural chemist, there is doubtless more in the theory of the virtues of saturated atmosphere than is at present believed.

In this connection it is well to note the great changes which have taken place in the winter climate of southern Louisiana. There is no reason to doubt that in the earliest years of the Nineteenth century the seedling sweet orange matured its crop year after year. In 1812 there were sweet-orange trees in the garden of the convent of the Ursuline Nuns, at New Orleans, which produced fruit in large quantities. In 1885 there were many hundreds of sweet-orange trees which produced from 4,000 to 5,000 oranges annually, and so sure was the orange crop considered that it was the custom of the fruit merchants to buy the produce of certain groves when in the flower in March or April. Prior to the destructive frosts of January, 1886, the orange groves extended along the Mississippi to a point 35 miles above New Orleans, and in the southwestern part of the state as far as Lake Charles and the Sabine. Now there are no groves and only a few scattering trees have been planted since 1899.

CAUSES FOR THE SHORT CROP OF 1899.

On February 7, 1895, in the orange-growing district in Louisiana, the mercury fell to a lower degree than had ever been recorded before, but on February 12, 1899, a still lower point was touched. The ruin that fell upon the young orange groves was practically complete, yet the sugar cane, while severely injured, was far from being destroyed. The sweet-orange tree, a seedling that was considered a very hardy plant, succumbed to the cold spells mentioned above, but the sugar cane survived.

The harvest season of 1877 was marked by peculiar climatic conditions. The months of September and October had been rainy, and November opened with high temperature and soaking rains; but on the 10th of that month all the ungathered cane was killed by frost. The plant was so immature that it could not be put in windrows to advantage, and the planters found it to their interest to rush the cutting and grinding as fast as possible, but the roads were so bad and the fields so drenched with rain that hardly more than a fourth of the usual load of cane could be hauled to the sugarhouse. In ten days after the first frost the cane would not make sugar and more than half of the crop was lost. In the spring the remains of the standing canes

were cut, piled, and burned to clear the way for the next crop.

The accidents that befell the crop of 1898 were very similar to the disasters of 1877. The month of September found the crop small and apparently stunted by a long drought, but rains and great heat started a renewed growth, and by the middle of October the cane had attained a normal size, and was apparently in fair condition, but very immature and watery. The rains had not yet ceased when, on the 23d of October, the state was visited by the earliest killing frost on record, and a very large proportion of the crop was absolutely ruined. The average yield of sugar was less than 105 pounds to the ton of cane, instead of 160 as is usual, and some planters obtained only 98 pounds per ton.

Owing to the unusually early frost in October, 1898, there was not as much seed cane put up that fall as usual, and the proportion of spoiled seed was very large when spring planting began in 1899, especially as much of the seed cane was further injured by the great cold of February 12 of that year. The area in plant cane in 1899 was small, and the stubble had suffered more from the very wet and cold winter than usual. The returns from the year's work were about one-half of that which a normal crop would have yielded.

SUGAR PRODUCTION IN LOUISIANA AND IN THE TROPICS.

One of the most noticeable differences between the cultivation of cane in Louisiana and in the tropics is in the cost of the seed cane as used in the island of Cuba, for example, and in Louisiana. If we take for granted that the thinnest planting or seeding likely to be successful in Louisiana is "two canes and a lap," which means that two canes are laid side by side in the furrow with a slight doubling at the ends, then not less than from four to six tons of cane (all of which is fit for the sugarhouse) are necessary to plant an acre; and this means an average value, at present prices, of about \$16. In the tropics, however, conditions are entirely different. Intelligent observers from Cuba describe the process of planting in almost the same terms as did Mr. Bryan Edwards, who wrote at the end of the Eighteenth century. In his history of the West Indies we have a neat picture of how the tops of the canes that have been cut off as unfit for sugar making are dropped into holes about 18 inches square dug out with a hoe, at intervals of from 4 to 6 feet.

The only expense in planting in the tropics is for labor, the material used for seed being of no value. In fact, methods employed in some parts of Cuba are very primitive. Rather than give one plowing to land that has been in cultivation for ten years the planter selects a new area, cuts away the underbrush, and girdles the trees, and by the help of fire gets a clean surface and

plants it in cane, not cultivating the land on which the stubble is beginning to fall to 12 tons to the acre, alleging that the taking in of new lands is less expensive than plowing the land that has been ten years in cane.

Some of the plantations in Louisiana have been in cane about one hundred years, and the soil is still considered worthy an expenditure of from \$6 to \$8 per acre for commercial fertilizer when called upon for a plant cane crop, and \$4 to \$6 per acre for rattoons.

In Cuba there are many planters who have no plows, their only implements being hoes for digging "cane holes" and machetes for cutting cane for the mill. In Louisiana a pair of mules, costing from \$300 to \$400, is necessary to cultivate something less than 25 acres in cane. In Cuba, where little plowing is done and draft animals are used only to haul cane to the sugarhouse, two yokes of oxen, worth \$40 a yoke, answer the purpose to the entire satisfaction of the planter.

In Louisiana the sucrose content of cane is rarely higher than 14 per cent, usually not more than 12 per cent, which allows about 8 per cent of commercial sugar to the ton of cane. In Cuba the sucrose content is often as high as 18 per cent, and 12 per cent of commercial sugar is the general output. The yield of cane in Louisiana is about 18 tons per acre for plant cane and 14 tons for stubble. In Cuba new land is expected to produce from 35 to 50 tons. In Louisiana the seed cane often rots either before or after planting, but in Cuba this never occurs, and while the seed cane in Louisiana can not be replaced in the same season, seed for planting is always available in the tropics, and land lying idle for want of sound seed is unknown.

As shown by abundant evidence, sugar can be produced in Cuba for one and a half cents per pound; but in Louisiana, even on a particularly fine plantation and under the best management, the cost of sugar is not less than three cents per pound.

GENERAL STATISTICS OF THE SUGAR INDUSTRY IN LOUISIANA.

The following figures present a summary of the present position of the sugar industry in its relation to the other branches of agriculture in Louisiana. The statement of acres of farm land, number of farms, and value of farms is for June 1, 1900, while that for crops and products is for the preceding year. A few figures are also given for the crop year 1898.

Farms in 1900.—The total number of farms, June 1, 1900, was 115,969, of which the number raising cane for sugar and sirup making was 13,881, or 12 per cent; of the latter the number raising sugar cane was 11,774, or 84.8 per cent, and the number raising sorghum cane 2,107, or 15.2 per cent. In addition, there were 11 large plantations and a number of smaller ones growing cane for seed, but making no sugar nor sirup, and selling no cane.

Land Under Cultivation in 1899 and Its Uses.—The area of land in all crops in 1899 was 3,421,751 acres, of which 277,903 acres, or 8.1 per cent, were used for growing sugar cane and sorghum cane; of this area 276,966 acres, or 99.7 per cent, were devoted to growing sugar cane, and the remaining 937 acres, or 0.3 per cent, to growing sorghum cane. Of land devoted to crops other than cane for making sugar, there were used for cotton, 1,376,254 acres, or 40.2 per cent; for corn, 1,343,756 acres, or 39.3 per cent, and for all other crops, 423,838 acres, or 12.4 per cent.

Cane Produced in 1899.—The total quantity of cane made into sugar, molasses, and sirup, was 2,123,354 tons. The number of tons of cane converted into sugar which were grown by manufacturers on their own lands by labor hired by themselves was 1,072,468; the number of tons grown by tenants and purchased by the manufacturers was 314,461; and the number purchased from others by manufacturers and the eight central factories was 736,425. The cane of 1899 was reduced to sugar by 274 sugar factories.

Cane Produced in 1898.—In 1898, the 351 central factories and large plantations handled 4,677,174 tons; 2,844,321 tons, or 60.8 per cent, were grown by owners of sugarhouses; 350,699 tons, or 7.5 per cent, were grown by tenants; 1,482,154 tons, or 31.7 per cent, were purchased from others. No tabulation was made of the relative amount of cane converted into sirup in 1899, or 1898.

In 1899, cane was grown for sugar or for seed by 320 plantations. The area devoted to cane for making sugar comprised the following: 59,246 acres of plant cane, with a product of 873,315 tons; 61,997 acres of first year rattoons, yielding 189,211 tons; and 5,922 acres of second year rattoons, yielding 9,942 tons. The cane for seed, aggregated 468,504 tons, or 30.4 per cent of the total sugar cane crop, and comprised the following: Plant reserved for seed, 96,025 tons; first year ratoon, 339,410 tons; and second year ratoon, 33,069 tons.

Sugar and Molasses Made in 1899.—Total quantity of sugar, 319,166,396 pounds (\$13,099,559); total quantity of sirup, 2,480,856 gallons (\$564,842); in addition sirup subsequently made into sugar, 923,466 gallons (\$157,391); total quantity of molasses, 11,703,877 gallons (\$1,277,384). Of the total amount of sugar produced 8,874,929 pounds were made by old processes, and 310,291,467 pounds by modern processes; of new process sugar, 251,789,270 pounds were firsts, 47,984,887 pounds, seconds, and 10,517,310 pounds, thirds.

In the crop year 1898, there was produced on the large plantations and in the central refineries from cane grown and purchased: Sugar, 556,994,942 pounds (\$22,197,168); molasses, 24,164,689 gallons (\$1,661,897); sirup, 2,774,961 gallons (\$432,481).

Sugar made by modern processes comprised: Firsts, 437,370,968 pounds; seconds, 87,523,291 pounds; thirds,

14,196,078 pounds; by the old open kettle process, 17,904,605 pounds.

The 3,870 plantations and farms making the sugar industry their principal source of revenue in Louisiana constituted only 3.3 per cent of the total number, and had an area of 1,209,837 acres, or 10.9 per cent of all farm area.

The value of land and improvements, exclusive of buildings, was \$33,063,960; value of buildings, \$11,027,060; value of implements and machinery, including apparatus for making sugar, and railroads for handling cane, \$21,591,940; value of live stock, \$4,747,109; making a total fixed capital of \$70,430,069, or 35.5 per cent of all the fixed capital in Louisiana agriculture.

In the 79,468 cotton farms the investment was \$67,505,143, and in the 32,631 other farms it was \$60,601,694. The sugar farms constituted 3.3 per cent, with a fixed capital of 35.5 per cent, while the cotton farms constituted 68.5 per cent, with a fixed capital of 34.0 per cent. The other farms constituted 28.2 per cent, with a fixed capital of 30.5 per cent.

Including what was fed to stock, sugar farms produced \$18,019,470, cotton farms \$36,823,212, and all other farms \$17,824,620. The value of products not fed, or gross farm income, was as follows: For sugar farms, \$16,656,300; for cotton farms, \$33,523,192; and for all other farms, \$15,959,340. The ratio of income to total fixed capital for sugar farms was 23.6 per cent, for cotton 49.7, and for all others 26.3.

The value of cane kept for seed was \$3,483,633.

The expenditures for labor and fertilizers on the 3,870 farms making sugar their chief source of income were \$6,931,470 and \$709,970, respectively, the total constituting 45.9 per cent of the gross income of the farms.

The 320 plantations in Louisiana that grew cane extensively in the year 1899 reported the following expenses: For labor and salaries, \$4,194,862; fertilizers, \$468,589; feed purchased, \$481,502; labor on plantation railroads and maintenance thereof, \$116,276; making a total of \$5,261,229, or an average of \$4.37 per ton. The average contract price at which cane was bought was \$3.56, showing a loss of 81 cents per ton in the field operations.

The large sugarhouses located on plantations, and the central factories purchasing all cane converted by them, numbered 351 in 1898, and 310 in 1899. The expenses of the 351 sugarhouses for 1898 (exclusive of the cost of cane) were as follows: For labor and salaries, \$3,548,982; fuel, \$1,688,295; mill supplies, \$106,162; freight expenses, \$291,309; taxes, \$437,398; insurance, interest, and miscellaneous, \$1,842,197; total, \$7,914,343. The average cost per ton of handling 4,677,174 tons converted into sugar was \$1.69.

For the crop of 1899 the expenses of the sugarhouses were as follows: For labor and salaries, \$1,316,814; fuel, \$644,665; mill supplies, \$50,627; freight, \$134,172;

taxes, \$305,355; insurance, interest, repairs, etc., \$949,935; total, \$3,401,568. The average cost per ton of handling 2,123,354 tons converted into sugar was \$1.60. The value per ton of cane converted in 1898 was \$5.19 and in 1899, \$7.11, showing a small margin of profit for the sugarhouse operations of 1898, and a large profit in 1899.

SUGAR IN HAWAII.

History.—The sugar industry in Hawaii has not been attended by failures such as discouraged the early attempts at cane growing in Louisiana. There is historical evidence that sugar cane is one of the few indigenous products of the islands, which seems borne out by the fact that, as in Asia, its organs of fructification possess the power of fecundity, while in America cane can be propagated only from cuttings.

Captain Cook, on his first visit to the group in 1778, mentioned, among the articles brought by the natives to his ship, the product which has since become the commercial backbone of the islands. He found cane growing wild and luxuriantly on the lowlands, and on arable levels between the mountain ranges, but the natives made no use of it except in its raw state for food. L. L. Torbert, one of Hawaii's pioneer planters, is authority for the statement that sugar was first manufactured on the islands by a Chinaman, who arrived at Honolulu in 1802 upon one of the vessels engaged in the sandal-wood trade. He brought boilers and a stone grinding mill, but, after reducing one small crop, returned to his native land with the entire outfit. The next sugar-manufacturing venture recorded was that of Don Paulo Marin, who engaged natives to crush the cane on large wooden poi boards with their crude stone pounders; the juice thus extracted was collected and boiled down in a small copper kettle, but the process being necessarily wasteful and only slightly remunerative, was soon abandoned. Although numerous attempts were made to manufacture sugar and molasses on a small scale during the next twenty years, the first mill of any consequence was erected in 1835 by Ladd & Company at Koloa, on the island of Kauai. They established the first sugar plantation in the same year, under a concession secured from the king, granting them an extended lease of lands on Kauai for the purpose of agricultural development. Although labor was cheap, little progress was made, and from ignorance of economical methods of cane culture the venture proved unsuccessful. Despite the crude and wasteful process of manufacture employed by the Koloa mill, others of the same kind were established, and in 1837 the first exportation was made, the amount increasing from \$300 that year to \$6,200 in 1838 and \$18,000 in 1840. Sugarhouses then generally consisted of a native grass hut, equipped with wooden rollers for crushing the cane, and whaler's try-pots for the reduction of the juice. The motive power was commonly furnished by

horses or oxen, though in some cases waterpower was utilized. The sugar made with such an equipment was, of course, of an inferior grade, being the residue after the juice had been reduced to sirup and drained off through the bottoms of perforated barrels.

Although D. M. Weston, of Hawaii, is said to have invented and put in use on a Maui plantation, in 1851, the first centrifugal machine ever used for drying sugar, the primitive processes of manufacture heretofore mentioned continued in vogue for some years, and it is, therefore, not surprising that the industry gradually waned until the introduction of steam as motive power, and the adoption of modern vacuum pans for evaporation, in 1858. As a result of these innovations, the number of plantations, which in 1857 had fallen to 5, was more than quadrupled and Hawaii's history as a sugar-producing country virtually dates from that period, although later influences served to largely increase the business.

The industry received its first decided impetus from the inflation of sugar values incident to the Civil War; the second was furnished by the commercial reciprocity treaty with the United States, which went into effect in 1876, while the more recent introduction of irrigation has proved the most potent factor in its upbuilding. The extent to which these influences affected the industry may be seen by a comparison of the exports in 1863, which hardly exceeded 5,000,000 pounds in all, with those of representative years of the other two periods, which were approximately 26,000,000 pounds in 1876 and 542,098,500 in 1899.

It was only after years of persistent effort to establish reciprocal commercial relations with the United States that success was achieved. The treaty, which was formally announced in 1875, practically created free trade between the islands and the United States, and under its provisions an era of unexpected prosperity began, the production of sugar, and of rice as well, increasing enormously. From a sugar production of 26,072,429 pounds in 1876 the output has increased to 542,098,500 pounds in 1899, a gain of 1,979 per cent. This phenomenal growth brought with it a development of lands formerly unused, a reclamation of wild and barren areas, the erection of costly mills, the establishment of an interisland commerce, a ready employment of native labor, a large accession of immigrants, and a great increase in island revenues, as a result of which manifold improvements were made.

The progress of this giant industry also brought with it serious disadvantages. It has resulted in a centralization of capital which has stunted other branches of agriculture and discouraged the opening up of new industries. It has directed attention toward industrial development to the exclusion of more important considerations, and the islands are now burdened with a class of laborers undesirable as permanent residents. The labor problem has for years taxed to the utmost

the resources and the ingenuity of Hawaiian planters. Dating from the time when the sugar industry began to expand, the struggle to secure suitable plantation labor has continued to the present time, and the difficulty is now further than ever from settlement. Great sums of money have been spent to provide for the growing needs of this industry, and thousands of Japanese, Chinese, and Portuguese have been imported. While the importation of Asiatic, or "coolie," labor has heretofore satisfied immediate requirements, the planters have been beset with new difficulties since annexation in 1898, for the Chinese-exclusion law became effective in the new territory, and there has been practically no immigration of unskilled labor since. Despite this obstacle, new plantations continue to be planned and existing ones enlarged, but the scarcity of labor has unquestionably retarded the expansion of the industry, and will continue to do so until some remedy is devised.

Practically the whole crop is exported, and almost all to the United States. The following table of sugar production since 1875 shows how the industry has thrived:

Year.	Quantity, pounds.	Year.	Quantity, pounds.
1875	25,080,182	1888	235,888,346
1876	26,072,429	1889	242,165,835
1877	25,576,965	1890	250,789,482
1878	38,481,458	1891	274,989,580
1879	49,020,972	1892	266,636,715
1880	63,584,871	1893	330,822,870
1881	93,789,483	1894	306,684,993
1882	114,177,938	1895	294,784,819
1883	114,107,155	1896	443,609,282
1884	142,054,923	1897	524,637,015
1885	171,350,314	1898	444,863,036
1886	216,228,616	1899	542,098,500
1887	212,703,647		

Among the questions which arose when it was proposed in 1875 to admit Hawaiian sugar free of duty was that of the probable future production of sugar by the islands, the annual output at that time being some 25,000,000 pounds, with but scant prospects of much increase. The stupendous impetus which was to result from the reciprocity treaty was not foreseen; nor were the possibilities of a vast irrigation system then realized. In the fiscal year 1900-1901, the exports were 690,882,132 pounds. Four of the islands, Hawaii, Kauai, Maui, and Oahu, are now producing sugar. It is probable not only that the area now planted in sugar cane in these islands will be greatly increased, but that others of the group, will be utilized, a crop having already been produced on Lanai, and extensive experiments being in progress on Molokai.

The islands are of volcanic origin, and the land most generally used for cane cultivation consists of shelves or ledges surrounding the bases of the mountains or central elevations. These fertile levels have been formed by the washings of the volcanic detritus brought down by rain from higher altitudes, the alluvium having been retained by the coral reefs which form a bar-

rier just outside the shore line. The best soil is of a reddish color, and resembles pounded brick mixed with vegetable humus. The lighter-colored soils, while not so productive, are sufficiently fertile to yield abundant crops of cane.

The rainfall varies in the cultivated regions of the islands from 30 to 300 inches. On the windward or rainy side the production of sugar is neither so great nor so certain as on the leeward or dry side, but the difference in expense is such that the profit in cane is about equal. In addition to the usually regular rainfall, upon which most of the plantations on the windward side rely, two forms of irrigation are used. By one method surface water is taken from the streams and delivered to the soil through canals and ditches, as in the arid sections of the United States, and by the other, an artificial supply of water is pumped from artesian wells to altitudes varying from 75 to 600 feet. When the rainfall is inadequate some of the plantations on the windward side employ surface irrigation, while those on the leeward side depend entirely upon irrigation from subterranean supply. The temperature being considerably higher and the water supply regular on the leeward side, the yield of sugar is greater. Owing to the nature of the soil and the slope of the land, the question of drainage, which is so important in Louisiana, does not have to be considered on the islands, the difficulty being to procure sufficient water.

In Hawaii the expense of planting is reduced to a minimum, the tops of the cane being used for the purpose. This gives the islands a great advantage over the cane-producing areas in Louisiana, where in 1899 cane to the value of \$3,483,623, or 23.8 per cent of the value of the entire sugar crop, was kept for seeding purposes. The following method is employed in planting on the islands: As soon as the cane tops are dropped in the furrow made by heavy plows, the hoes pass along and cover them with the banked-up earth which has been left in high ridges by the plows. The water is then turned on, a tiny rivulet running down each cane row, and in a few days the young sprouts are above the surface and ready for fresh earth and more water. This process is continued until the stalks are large enough to lose their lower leaves, when the process of threshing (i. e., pulling the lower leaves from the growing stalks and throwing them on the ground to prevent the growth of weeds and grass) is begun. But little other cultivation is necessary if the cane be sufficiently watered.

The three well-marked varieties of cane grown generally on the islands are those with yellow stalks, growing near the seacoast line, the dark purple variety, grown higher up the mountain side, and a striped purple and yellow cane, which is found at the highest altitudes. The Lahaina, so-called from the place on the island of Maui where it was first planted, was brought from the Marquesas Islands, and is generally regarded as the best variety cultivated.

As a result of the progress made in the sugar industry during the last quarter of a century, Hawaii now ranks third among the cane-sugar producing sections of the world. Java and Cuba each produce more sugar, but on neither of these islands does the average yield per acre equal that in Hawaii, where it is from 60 to 70 tons of plant cane per acre, and from 30 to 50 tons of ratoon cane. The per cent of saccharine content in Hawaiian cane is also very high, an average of but 8.2 tons of cane having been required in 1899 for the production of 1 ton of sugar. The average production of sugar from an acre of cane was 4.1 tons, but in many localities yields of 8, 10, and 12 tons per acre are reported, while in certain sections of Oahu there are authenticated cases on record of 16 tons having been produced per acre.

The methods employed in cane cultivation are more advanced in Hawaii than in any other sugar-producing center of the world. Steam and gang plows are in general use, and on plantations where the rainfall is insufficient, costly pumping plants have been erected. One of these pumping stations on the island of Oahu represents an outlay of \$1,750,000. Modern appliances for the reduction of cane have also been introduced, and very recently some of the mills have installed crushing apparatus and other machinery of an improved type in order to secure a slightly increased degree of extraction over that possible with the equipment formerly used. Cane is generally taken from the fields to the mills by means of private railroads or by a system of flumes.

The difference between the profit to be derived from the cultivation of sugar cane in Hawaii and in Louisiana is apparent in a most cursory examination. In Louisiana, including plant and stubble cane, the average production of an acre of cane is about 17 tons, which yields about 2,700 pounds of two qualities of sugar. In the Hawaiian Islands the average yield of cane is over 34 tons, giving about 8,300 pounds of sugar. The crop is worth on the average about \$290, and its cost \$185, per acre, but for a crop worth as much as \$800 per acre the cost is only about \$300, and while only about half of the acreage sends cane to the mill each year, the profits are still more than proportionate to the capital invested. The cost of production in Louisiana is not less than 3 cents a pound for an average crop, leaving but a small margin for general wear and tear, or offset for contingencies. Estimating the average production at 2,700 pounds to the acre, the profit at one-half cent a pound is less than \$15 per acre. As previously stated, Hawaiian planters possess a most decided advantage over those of Louisiana in the matter of the saving on seed for replanting, and in the additional fact that in Hawaii the refuse cane, or bagasse, furnishes sufficient fuel to operate the sugar mills. The importance of this item as a factor in the success of the industry becomes evident when it is known that in Louisiana, where considerably less sugar was produced than in Hawaii, fuel to the

value of \$644,655 was burned in 1899, in addition to the bagasse used. These advantages, combined with the superior conditions of climate and soil, make the sugar-raising areas of Hawaii the most remunerative in the world.

General Statistics of the Sugar Industry in Hawaii.—The following figures give a summary of the sugar industry in its relation to other branches of agriculture in Hawaii. The statement of acres of farm land, number of farms, and value of farm property is for June 1, 1900, while that for crops, or products, is for the year 1899. A few figures are given also for the crop year 1898.

Farms, 1900.—The total number of farms reported, June 1, 1900, was 2,273; the number raising cane for sugar and sirup making was 184 or 8.1 per cent; the number of sugar farms was 170, or 7.5 per cent; the number of farms making sugar was 42, or 1.8 per cent; the number of farms reporting cane sold was 138, or 6.1 per cent; the number of farms growing cane which had not then reached maturity was 4, or 0.2 per cent.

Land Under Cultivation in 1899 and Its Uses.—The total area of land under cultivation in 1899 was 86,854 acres; that used for growing sugar cane was 65,687 acres, or 75.6 per cent; and that used for all other crops and products was 21,167 acres, or 24.4 per cent.

Cane Produced by Growers in 1899.—The total number of tons made into sugar (handled by 44 plantations and central factories) was 2,239,376; that grown by manufacturers on their own land with labor hired by themselves, was 2,066,832 tons; that purchased by manufacturers from others was 172,544 tons; the plant cane used for making sugar, 35,282 acres (1,389,152 tons); first year ratoon, 24,746 acres (675,595 tons); second year ratoon (exclusive of the tops preserved for seed), 140 acres (2,085 tons).

Sugar and Molasses Made in 1899.—The total quantity of sugar was 542,098,500 pounds (\$19,254,773). Of this sugar there were of firsts, 466,254,500 pounds; seconds, 75,310,000 pounds; thirds, 534,000 pounds; Molasses (the greater portion had no market value), 4,702,292 gallons (\$8,000). No sirup was made.

The 170 plantations in Hawaii making the sugar industry their principal source of income constituted only 7.5 per cent of the total number, and had an acreage of 1,043,117, or 40.0 per cent of all lands. The value of land and improvements, exclusive of buildings, was \$48,543,391; of buildings, \$2,737,685; of implements and machinery, including apparatus for making sugar, and railroads for handling cane, \$11,319,020; and of live stock, \$1,108,533; making a total fixed capital of \$63,708,629, or 86.0 per cent of all the fixed capital in Hawaiian agriculture.

The investment in all other farms was \$10,376,359, or 14.0 per cent. Including what was fed to live stock, the products of sugar farms were valued at \$19,262,031; and those of all other farms, at \$2,778,700. The income derived from sugar farms was equal to 30.2 per cent,

and that from other farms to 26.8 per cent, of fixed capital.

The expenditures of these 170 farms, making sugar their chief source of income, were as follows: Labor, \$6,971,896; fertilizers, \$1,326,407; total, \$8,298,303, or 43.1 per cent of the gross income of these farms.

Expenditures of 46 farms with facilities for manufacturing sugar and for which more detailed reports were obtained were as follows: Labor, \$4,743,256; fertilizers, \$1,209,130; fuel used in operating irrigation pumps, steam plows, and locomotives, and in conducting kindred field operations, \$681,186; feed purchased, \$486,808; maintenance and repair of irrigation works, \$827,932; total, \$7,948,312. These comprise all of the reported expenditures outside of the sugarhouses. The unreported expenses were the rentals paid for the 457,492 acres of land leased from the Government and for the 142,449 acres leased from private persons or corporations, the expenditures for maintaining and repairing machinery, appliances, and buildings in use, outside of the sugarhouses, and the taxes on land owned. These expenses, together with the \$7,948,312 detailed above, are probably nearly, if not quite, equal to the amount, \$9,580,495, which the sugarhouses returned on the manufacturers' schedules as the cost of the 2,226,307 tons of cane which they converted into sugar. The average cost of raising a ton of cane and delivering it to the factory may, therefore, be given as \$4.30.

The expenditures connected with the operations of the sugarhouses on these 46 plantations, as distinct from their other agricultural operations, are tabulated with those of the two establishments making sugar but not growing cane. These two establishments are so small comparatively that their inclusion does not materially affect the totals. In 1899 the expenditures of the 48 sugarhouses were as follows: Labor, including salaries, \$1,111,776; fuel, \$57,524; mill supplies, \$181,620; freight charges, \$58,283; taxes and insurance on sugarhouses and contents, \$79,455; interest, repairs, and miscellaneous expenses connected with operation, \$541,278; cane purchased from outside plantations, \$671,445; and all other expenses, \$551,854. The total cost of operating the sugarhouses, exclusive of the amount paid for cane purchased, was \$2,581,790, or an average of \$1.16 for each ton of cane converted into sugar. This makes the total cost of raising a ton of cane and converting it into sugar \$5.46, of which amount the cost of the sugarhouse operations represents a little less than one-fourth. On the other hand, the fixed capital connected with the sugarhouses was \$8,654,476, which represents a little less than one-seventh of the total amount invested in the industry. The average value of the sugar produced from a ton of cane was \$8.60, leaving a margin of \$3.14 per ton of cane to cover interest on investment, and renewals of buildings, implements, machinery, etc. After making liberal allowances for these items the figures show a net profit such as is realized in few industries.

The value of the 46 sugarhouses which were located

on plantations, and that of their products, is included in the statistics of the agricultural wealth of Hawaii as reported by the Census Office. Their operations are incidental to the growing of cane on the plantations, and their output is included with the total farm products. Since these houses are engaged in the man-

ufacture of raw sugar, their capital and output are included also in the report of the division of manufactures. To this extent the statistics collected by the two divisions involve a duplication, which will be taken into account in the special report on Wealth, Debt, and Taxation.

SORGHUM CANE.

INTRODUCTION AND USE.

Nearly fifty years ago the agricultural interests of this country became greatly interested in the prospect of a new sugar-producing plant, and since then much time and money have been spent in efforts to obtain sugar from sorghum cane on a profitable commercial scale. Containing a large per cent of sucrose and a small per cent of glucose, it would seem to be a more valuable sugar producer than either sugar cane or beets. But this theory has failed of demonstration, owing to the fact that the juice of the sorghum cane, as extracted by the mill, contains, in addition to sugar and water, a large proportion of starch, dextrin, and kindred elements which operate against its being successfully worked for sugar. From the results obtained by the process of diffusion it was discovered that a foreign substance is extracted from the leaves and sheaths of unstripped cane which renders the product almost unsalable. Machines have, in consequence, been devised by which the stalks are stripped, cleaned, and shredded, and these have been operated with such success as to make possible the extraction of sugar on a paying basis.

Experiments conducted at the sugar experiment station near New Orleans some years ago demonstrated that the climate and soil of Louisiana are favorable to the growth of sorghum, and throughout the northern part of the state, where the tropical cane can not be grown successfully, the cultivation of sorghum cane is very general, not only for the manufacture of sirup but also as a forage crop. In view of the fact that the tropical cane introduced into the state in 1751 was not a commercial success for nearly fifty years, it is possible that sorghum cane likewise will be improved by cultivation and acclimation. When Margraff, the German chemist, began his investigations in 1756, he found that the sugar beet contained only 1.5 per cent of sugar, but now the available output of commercial sugar as delivered from the centrifugal machines is nearly 13 per cent of the gross weight of the beet. It is believed that under the quickening hand of agricultural chemistry not only will the per cent of sugar in the sorghum plant be increased, but that substances will be eliminated which now impede the crystallization of the sugar contained in the sorghum juice.

During the Civil War period almost every farmer in the South grew sorghum cane, and although mills were small and scattered, large quantities of sirup were made. At that time it was thought that sugar making from this cane was impracticable, and as the manufacture

of sirup was profitable and the cost of factories so much less than that of sugar factories, few persons cared to incur the expense incident to the latter. The attempts which have been made in the Northern states to obtain sugar from sorghum, have been costly, but have been prosecuted with much energy and perseverance.

Under chemical analysis, sorghum cane has been found to contain as much as 12.2 per cent of sucrose and only 0.6 per cent of glucose.

Fifteen years ago the Rio Grande works, in New Jersey, succeeded in manufacturing an average of 1,400 pounds of sugar per acre of sorghum cane. At the experiment station near New Orleans, five varieties were tried, with the following results:

VARIETIES OF CANE.	Tonnage.	Mill extraction, per cent.	Mass-cult, per cent.
Link's Hybrid	12.00	61.00	55.00
White Mammoth	12.50	60.50	47.20
India	11.25	59.00	57.00
Early Orange	12.25	60.00	.....
Honduras	15.61	65.00	.....

By a systematic cultivation looking to the development of the sugar-bearing qualities of the sorghum cane, it is probable that this plant, like the beet, will improve in its sugar yield. On account of the impurities in the juice, it has been found not practicable to reduce sorghum cane in factories constructed for handling of the tropical cane. Experiments at the station near New Orleans have demonstrated the necessity of the diffusion process, the mill not being adapted to the manufacture of sugar from sorghum. While the industry is not yet fully developed, it is probable that eventually the growing of sorghum cane for sugar will prove as profitable in northern Louisiana as the growing of beets in California or Michigan, the smaller per cent of sugar in the sorghum cane being counterbalanced by the small cost of cultivation and the value of the seed as food for stock and poultry.

GENERAL STATISTICS.

Table 9 gives, by states and territories, the acreage, production, and value of sorghum cane grown and of sorghum sirup made on farms in 1899, with averages and percentages. Table 10 presents a summary of the acreage of sorghum cane in the United States in 1889 and 1899, and Table 11 gives a summary of the production of sorghum sirup in the census years from 1859 to 1899, inclusive.

In 1899 there were 446,621 farms reporting sorghum cane, of which 197,164, or 44.1 per cent, were in the South Central division; 125,022, or 28.0 per cent, in the North Central division; 123,626, or 27.7 per cent, in the South Atlantic division; 553, or 0.1 per cent, in the Western division; and 256, or 0.1 per cent, in the North Atlantic division. A total of 293,152 acres of cane was reported for these farms, an average of 0.7 acres per farm. The small average area reported for the ordinary farm shows that sorghum in the United States is almost exclusively grown as incidental to other farming operations and not as a principal source of income.

From the 293,152 acres devoted to cane, 1,910,046 tons were grown, of which 1,618,343 tons were crushed by the growers for sirup, and 291,703 tons were sold to mills for making sirup. These figures do not include a considerable acreage and quantity of sorghum cane grown for forage, and reported under the head of "hay and forage."

The 1,618,343 tons of sorghum cane crushed for sirup, produced 16,972,783 gallons, valued at \$5,288,083, and for the 291,703 tons of cane sold to the mills \$815,019 were received, making the total receipts from the cane and its products \$6,103,102. The average quantity

of sirup made from an acre of cane in 1899 was 58 gallons, exactly the same as ten years before. The average varied from 8 gallons in Oklahoma to 79 in Alabama.

Of the total acreage of sorghum cane grown in the United States in 1899, Tennessee, Missouri, Texas, Kentucky, Kansas, and North Carolina reported 51.9 per cent, and in 1889, 53.5 per cent. During the last decade each of the above states suffered a loss in acreage, but there was a corresponding decrease in nearly all the states of the nation, so that these states, as a whole, show no material decrease in their per cent of the total acreage. The six previously mentioned states, together with Arkansas, Mississippi, Alabama, Georgia, and Oklahoma, reported 75.6 per cent of the total acreage in 1900. Of these states, Oklahoma greatly increased its acreage, while the others showed decreases somewhat less than that for the nation as a whole, and hence the eleven states reported a larger proportion of the total acreage than ten years before.

Table 11 gives the product of sorghum sirup in the census years beginning with 1859, showing an increase from 6,749,123 gallons in 1859 to 28,444,202 in 1879, and a decrease to 16,972,783 in 1899. The decrease since 1879 has been most marked in the North Atlantic and North Central divisions.

SUGAR BEETS.

The Twelfth Census is the first to collect statistics of sugar beets, or of the sugar made therefrom. Statistics of the former were gathered and compiled by the division of agriculture, and of the latter by the division of manufactures.

Reports of beets grown for sugar were received by the division of agriculture from 14,035 farms, of which 9,085, or 64.7 per cent were in Michigan, and 1,753, or 12.5 per cent in Utah, and the others were in California, Colorado, Illinois, Minnesota, Nebraska, Nevada, New Mexico, New York, Oregon, Texas, Washington, and Wisconsin. The statistics of the acreage of these farms, the tons of beets sold, and the farmers' receipts therefrom, together with averages and percentages, are given in Table 12, section A. Section B of the same table furnishes a report of the acreage of beets and tons purchased by the factories, as reported to the division of manufactures. The same section of the table gives also the total amount paid by the factories to farmers for the beets. Section C presents a summary of the materials used in the manufacture of beet sugar, and section D, of the quantity and value of the products made. The farmers reported the production of 110,170 acres of beets, while the factories reported 135,305 acres as the area on which the beets purchased by them were grown. The 135,305 acres, reported to the division of manufactures included all the land for the cultivation of which the factories had made contracts in 1899. Many of the fields, however, failed to produce any crop, and as a result the actual number of acres harvested, according to the bulletin

of manufactures, was 105,175 acres. This is somewhat less than the acreage reported by the farmers, who probably included the acreage of some of the partially destroyed crops, which the manufacturers excluded. The different methods adopted for reporting the acreage of beets explain the difference in the two tables.

The farmers reported 793,353 tons of beets sold, while the factories reported 794,658 tons purchased. This excess of about 1,300 tons, or nearly 0.2 per cent of the total consumption, probably represents the production of a number of small farms whose beet acreage was overlooked by the enumerators, and accordingly not reported.

The agricultural division of the census shows that the farmers reported, as the receipts from their sales of beets, a total of \$3,323,240, while the manufactures division reported \$3,485,320 as paid by the factories for this purpose. The difference here represents in part the value of the beets that were missed by enumerators, and in part the expenses which some of the farmers had deducted from their gross receipts on account of railroad freight, etc., for shipping their beets to the factories. From the beets reported by the farmers there were produced 163,458,075 pounds of sugar, having a factory value of \$7,222,581. The sugar made from beets represents in its finished form an average value of \$65.56 per acre, of which \$30.46, or 46.5 per cent, represents the cost of converting the same into sugar, including the cost of the beets and all other material used in the operation, together with the cost of all labor involved.

MAPLE SUGAR AND SIRUP.

Table 13 gives the quantity and value of maple sugar made on farms in 1899 and the quantity reported in the census years 1850 to 1890, by states and territories. Table 14 gives the quantity and value of maple sirup made on farms in 1899 and the quantity reported in the census years 1860 to 1890, by states and territories.

Of the 5,739,657 farms in the United States, June 1, 1900, 62,714 reported maple sugar, and 62,718 reported sirup. The quantity of sugar made on farms in 1899 was 11,928,770 pounds. This was but little more than one-third of the product reported in every preceding census year from 1850 to 1890. The largest product reported by any census, was 40,120,205 pounds, in 1860, and the smallest prior to 1900, was 28,443,645 pounds, in 1870.

Of the 11,928,770 pounds reported in 1900, 10,478,240, or 87.8 per cent, were produced in the North Atlantic states; 1,020,880, or 8.6 per cent, in the North Central division; 426,200, in the South Atlantic division; and 3,500, in the South Central. None was produced in the Western division.

For the whole United States the average number of pounds per farm reporting was 190, while it was 263 pounds in the North Atlantic, 219 in the South Atlantic, 49 in the North Central, and 22 in the South Central divisions. The small quantities per farm reported in the North Central and South Central states indicate that sugar making there was purely incidental to the manufacture of sirup, which was produced in larger relative quantities than in the first two divisions mentioned.

In the North Atlantic division the product reported in 1900 was only about one-third that of ten years before. The decrease in the North Central division was even more marked, while the production reported

in the South Atlantic division by the census of 1900 was slightly greater than ten years before, although less than at any census prior to that of 1890.

The largest quantities of sugar were reported by Vermont, 4,779,870 pounds; New York, 3,623,500; and Pennsylvania, 1,429,540. These three states produced over 80 per cent of the total for the nation. Of these states, Pennsylvania, producing the smaller quantity, showed the smallest actual and relative decrease.

Of the 2,056,611 gallons of sirup reported by the census of 1900, 1,211,334 gallons were produced in the North Central division and 820,108 gallons in the North Atlantic. The North Central division thus reported about 50 per cent more than the North Atlantic, although the latter reported more than ten times the quantity of sugar made in the former. The maple sugar industry is conducted on a smaller scale in the North Central than in the North Atlantic division, and the farmers convert the larger quantity of their product into sirup, while in the North Atlantic division the main product is sugar.

The quantity of sirup does not show the decrease that is indicated by the figures of sugar production. The production of sirup in the North Central division was greater than ever before reported, the figures showing a continuous increase from 1860 to 1900, except in 1870. The production of sirup in the North Atlantic division increased from 1860 to 1890, except in 1870, and decreased a little less than 20 per cent in the last decade.

Of the states reporting maple sirup, Ohio leads with a production of 923,519 gallons, which is much greater than ever before. The product of New York was 413,159, Indiana 179,576, and Vermont 160,918 gallons. Twenty-three states and territories reported maple sirup or sugar.

GENERAL TABLES.

TABLE 1.—FARMS REPORTING SUGAR CANE AND PRODUCTS, AND THE ACREAGE AND PRODUCTION OF CANE IN 1899, WITH AVERAGES, BY STATES AND TERRITORIES, BY PARISHES IN LOUISIANA, AND BY ISLANDS IN HAWAII, IN DESCENDING ORDER OF ACREAGE.

STATES AND TERRITORIES.	Rank.	Total number of farms.	Number of sugar farms. ¹	FARMS REPORTING, 1899.				ACREAGE AND PRODUCTION OF CANE, 1899.					Average tons per acre.
				Sugar cane.	Sugar.	Sirup made.	Cane sold.	Acres.	Tons of cane harvested.				
									Total.	Sold.	Reserved for seed.	Converted into sugar, molasses, and sirup. ²	
The United States.....		5,739,657	4,825	181,566	2,819	160,847	18,085	462,673	6,441,678	1,298,620	1,453,447	3,689,511	14
Louisiana.....	1	115,969	3,870	11,774	281	5,332	6,150	276,966	3,137,338	1,038,496	1,013,984	1,084,858	11
Hawaii.....	2	2,273	170	184	42		138	65,687	2,239,376	172,544		2,066,832	34
Alabama.....	3	223,220	137	44,639	97	43,982	780	32,871	267,857	2,751	131,484	133,622	8
Georgia.....	4	224,691	165	46,335	969	41,093	4,273	24,056	281,410	18,868	104,224	161,318	11
Texas.....	5	352,199	264	15,694	39	11,612	4,043	17,824	170,486	51,768	71,290	44,431	10
Florida.....	6	40,814	66	17,314	1,075	16,038	201	13,800	140,729	1,157	55,200	81,372	10
Mississippi.....	7	220,803	49	26,500	50	24,918	1,332	11,552	122,384	5,914	45,809	70,661	11
South Carolina.....	8	155,355	19	18,776	265	17,360	1,151	7,342	73,732	3,585	29,368	40,749	10
Arkansas.....	9	178,694	21	458	1	455	2	460	4,097	16	1,840	2,211	9
Arizona.....	10	5,809	5	7		2	5	50	240	100	40	100	5
Indian Territory.....	11	45,505	32	25			25	35	550	229	92	299	16
North Carolina.....	12	224,637	23	57		55	2	25	199	11	90	98	8
New Mexico.....	13	12,311	4	3			3	6	211	191	20		42
Other states and territories.....		3,937,886											

LOUISIANA.

PARISHES.	Rank.	Total number of farms.	Number of sugar farms. ¹	FARMS REPORTING, 1899.				ACREAGE AND PRODUCTION OF CANE, 1899.					Average tons per acre.
				Sugar cane.	Sugar.	Sirup made.	Cane sold.	Acres.	Tons of cane harvested.				
									Total.	Sold.	Reserved for seed.	Converted into sugar, molasses, and sirup. ²	
The State.....		115,969	3,870	11,774	281	5,332	6,150	276,966	3,137,338	1,038,496	1,013,984	1,084,858	11
St. Mary.....	1	609	430	486	34	2	449	44,137	491,459	121,978	162,424	207,067	11
Lafourche.....	2	1,035	225	277	20	26	251	28,674	356,805	121,342	105,789	129,674	12
Assumption.....	3	456	240	282	33	5	242	28,023	309,610	107,699	96,655	105,256	11
Terrebonne.....	4	748	341	436	25	28	385	27,177	333,493	94,286	100,011	139,196	12
St. James.....	5	361	183	215	41	2	172	22,280	243,976	74,149	81,641	88,186	11
Iberia.....	6	1,828	802	1,247	10	15	1,222	19,449	202,984	90,654	71,572	40,753	10
Iberville.....	7	746	152	206	26	10	170	17,453	180,037	47,189	64,227	68,621	10
St. John the Baptist.....	8	311	114	135	10	1	124	14,733	172,127	62,697	54,328	55,292	12
Ascension.....	9	1,200	95	62	11	12	27	11,454	125,266	44,321	42,151	38,734	11
St. Charles.....	10	333	130	179	12		167	9,711	124,615	22,324	35,736	60,455	13
Plaquemines.....	11	728	89	119	4		115	8,665	119,750	61,880	31,666	26,204	14
West Baton Rouge.....	12	769	35	85	9	6	70	8,500	75,699	14,078	31,280	30,341	9
Lafayette.....	13	3,088	318	372	1	167	704	8,104	83,917	52,445	28,546	2,926	10
St. Martin.....	14	2,032	255	601	6	80	515	5,546	57,931	29,525	20,409	7,997	10
East Baton Rouge.....	15	2,477	20	50	1	9	46	4,421	49,069	27,665	16,270	5,734	11
Jefferson.....	16	461	22	36	3	1	32	3,013	45,965	11,927	13,296	20,742	13
Vermilion.....	17	2,656	238	495	5	16	475	3,230	33,911	20,428	11,226	2,257	10
St. Bernard.....	18	210	33	39	1		38	1,998	23,802	10,246	7,356	6,200	12
Pointe Coupee.....	19	3,772	8	36	3	3	24	1,786	16,189	2,020	9,219	4,950	9
Rapides.....	20	4,249	39	290	2	209	79	1,729	23,061	13,431	6,363	3,267	13
Orleans.....	21	836	7	11	5	1	5	1,610	21,379	754	5,925	14,700	13
St. Landry.....	22	7,549	29	375	3	293	79	1,531	14,523	3,361	5,634	5,523	9
Avoyelles.....	23	4,674	8	139	3	56	30	688	7,746	2,727	2,536	2,433	11
Other parishes.....		74,841	52	5,104	7	4,392	679	2,484	24,284	2,170	9,724	12,390	

HAWAII.

ISLANDS.	Rank.	Total number of farms.	Number of sugar farms. ¹	FARMS REPORTING, 1899.				ACREAGE AND PRODUCTION OF CANE, 1899.					Average tons per acre.
				Sugar cane.	Sugar.	Sirup made.	Cane sold.	Acres.	Tons of cane harvested.				
									Total.	Sold.	Reserved for seed.	Converted into sugar, molasses, and sirup. ²	
The Territory.....		2,273	170	184	42		138	65,687	2,239,376	172,544		2,066,832	34
Hawaii.....	1	954	138	152	19		129	35,096	983,053	97,750		885,303	28
Kauai.....	2	399	13	13	8		5	12,947	487,198	46,662		440,636	38
Maui.....	3	368	10	10	9		1	10,534	398,333	1,200		397,133	38
Oahu.....	4	507	8	8	6		2	6,910	366,742	22,932		343,810	53
Lanai.....	5	2	1	1			1	200	4,000	4,000			20
Other islands.....		28											

¹ Farms deriving 40 per cent of their income from sugar cane.

² On the farms of those growing the cane.

STATISTICS OF AGRICULTURE.

TABLE 2.—FARM VALUE OF SUGAR CANE AND PRODUCTS IN 1899, WITH AVERAGES AND PERCENTAGES, BY STATES AND TERRITORIES, BY ISLANDS IN HAWAII, AND BY PARISHES IN LOUISIANA, IN DESCENDING ORDER OF VALUE.

STATES AND TERRITORIES.	Rank.	FARM VALUE OF SUGAR CANE AND PRODUCTS, 1899. ¹						Per cent of total value.	Cumulative per cent.
		Total.	Cane sold.	Cane reserved for seed.	Sugar, molasses, and sirup.	Average per acre.	Average per farm.		
The United States		\$39,304,632	\$4,611,239	\$5,018,469	\$29,674,924	\$87	\$216	100.0	
Hawaii	1	18,762,996	729,481		18,033,515	286	101,973	47.7	47.7
Louisiana	2	14,627,282	3,533,507	3,483,633	7,610,142	53	1,242	37.2	84.9
Georgia	3	1,480,704	72,822	364,784	1,043,098	57	32	3.8	88.7
Alabama	4	1,469,000	10,513	454,664	1,003,823	45	33	3.7	92.4
Texas	5	977,058	219,905	250,536	506,612	55	62	2.5	94.9
Mississippi	6	804,870	23,918	161,084	619,868	70	31	2.1	97.0
Florida	7	723,176	5,194	193,200	524,782	52	42	1.8	98.8
South Carolina	8	429,425	18,582	102,788	313,055	58	23	1.1	99.9
Arkansas	9	25,285	52	6,440	18,793	55	55		
North Carolina	10	1,412	54	950	1,006	56	25		
Indian Territory	11	1,876	886	490		39	55	0.1	100.0
Arizona	12	1,348	620	500	228	27	193		
New Mexico	13	705	705			141	235		

HAWAII.

ISLANDS.	Rank.	FARM VALUE OF SUGAR CANE AND PRODUCTS, 1899. ¹						Per cent of total value.	Cumulative per cent.
		Total.	Cane sold.	Cane reserved for seed.	Sugar, molasses, and sirup.	Average per acre.	Average per farm.		
The Territory	1	\$18,762,996	\$729,481		\$18,033,515	\$286	\$101,973	100.0	
Hawaii	1	7,534,732	392,727		7,142,005	215	49,571	40.1	40.1
Kaui	2	4,162,890	210,854		3,952,036	322	320,222	22.2	62.3
Mau	3	3,860,858	4,800		3,856,058	367	386,086	20.6	82.9
Oahu	4	3,188,516	105,100		3,083,416	461	398,565	17.0	99.9
Lanai	5	16,000	16,000			80	16,000	0.1	100.0

LOUISIANA.

PARISHES.	Rank.	FARM VALUE OF SUGAR CANE AND PRODUCTS, 1899. ¹						Per cent of total value.	Cumulative per cent.
		Total.	Cane sold.	Cane reserved for seed.	Sugar, molasses, and sirup.	Average per acre.	Average per farm.		
The State	2	\$14,627,282	\$3,533,507	\$3,483,633	\$7,610,142	\$53	\$1,242	100.0	
St. Mary	1	2,547,271	443,602	594,753	1,608,916	58	5,241	17.4	17.4
Terrebonne	2	1,685,964	318,078	350,040	1,017,886	62	3,867	11.5	28.9
Lafourche	3	1,621,892	389,508	389,583	892,801	57	5,856	11.1	40.0
Assumption	4	1,303,831	349,697	314,129	640,005	47	4,624	8.3	48.9
St. James	5	1,073,117	254,337	278,325	540,455	48	4,991	7.3	56.2
Iberville	6	858,007	160,443	218,372	479,192	49	4,165	5.9	62.1
Iberia	7	881,373	308,713	243,602	279,058	43	667	5.7	67.8
St. John the Baptist	8	799,624	219,090	190,148	390,386	54	5,923	5.5	73.3
St. Charles	9	656,232	72,999	116,857	466,376	49	3,660	4.5	77.8
Ascension	10	562,764	150,691	147,629	264,444	48	10,822	3.8	81.6
Plaquemines	11	528,765	214,105	109,564	205,096	61	4,443	3.6	85.2
West Baton Rouge	12	375,340	49,273	109,480	216,587	44	4,416	2.6	87.8
Lafayette	13	313,127	183,557	99,911	29,659	39	859	2.1	89.9
Jefferson	14	228,072	83,763	46,536	142,773	63	6,335	1.6	91.5
St. Martin	15	223,336	95,956	60,929	61,051	40	372	1.5	93.0
East Baton Rouge	16	192,132	93,221	54,949	43,962	48	3,431	1.3	94.3
Orleans	17	137,626	2,425	19,315	115,886	85	12,511	0.9	95.2
Vermilion	18	124,409	69,455	38,168	16,786	39	251	0.9	96.1
St. Bernard	19	114,502	36,578	26,261	51,663	57	2,936	0.8	96.9
Rapides	20	100,681	46,740	22,143	31,798	58	847	0.7	97.6
St. Landry	21	75,767	11,265	19,606	44,896	49	202	0.5	98.1
Pointe Coupee	22	75,764	7,459	35,374	32,931	42	2,105	0.5	98.6
Avoyelles	23	39,004	9,626	8,876	20,502	57	281	0.3	98.9
Other parishes		158,692	7,926	33,783	116,983	64	31	1.1	100.0

¹By "farm value" is meant the value of the sugar cane, and of the sugar, sirup, and molasses made therefrom by the grower of such cane. It does not include the value of sugar or sirup made from purchased cane.

TABLE 3.—QUANTITY AND FARM VALUE OF SUGAR, MOLASSES, AND SIRUP MADE FROM CANE HARVESTED IN 1899 ON THE FARMS OF THE MAKERS, WITH PERCENTAGES, BY STATES AND TERRITORIES, BY ISLANDS IN HAWAII, AND BY PARISHES IN LOUISIANA, IN DESCENDING ORDER OF POUNDS OF SUGAR MADE.

STATES AND TERRITORIES.	SUGAR.				MOLASSES.				SIRUP.				
	Rank.	Pounds.	Value.	Per cent of pounds.	Cumulative per cent.	Gallons.	Value.	Per cent of gallons.	Cumulative per cent.	Gallons.	Value.	Per cent of gallons.	Cumulative per cent.
The United States		664,020,814	\$24,584,469	100.0		110,379,210	\$796,990	100.0		12,293,032	\$1,293,475	100.0	
Hawaii	1	504,566,000	18,025,515	76.0	76.0	14,066,401	8,000	39.2	39.2				
Louisiana	2	156,072,199	6,399,187	28.5	99.5	6,213,859	782,271	59.9	99.1	1,552,641	428,684	12.6	12.6
Texas	3	2,789,250	194,074	0.4	99.9	98,950	6,719	0.9	100.0	888,637	365,819	7.2	19.8
Florida	4	284,300	12,744	0.1	100.0					1,687,452	512,038	13.7	33.5
Georgia	5	226,730	9,176	(²)						3,226,367	1,033,922	26.3	59.8
South Carolina	6	49,590	2,256	(²)						895,064	310,799	6.6	66.4
Mississippi	7	18,930	898	(²)						1,413,219	618,975	11.5	77.9
Alabama	8	13,765	612	(²)						2,672,438	1,003,211	21.7	99.6
Arkansas	9	50	2	(²)						44,819	18,791	0.4	100.0
North Carolina	10									1,957	1,008	(²)	
Arizona	11									438	228	(²)	

HAWAII.

ISLANDS.	SUGAR.				MOLASSES.				SIRUP.				
	Rank.	Pounds.	Value.	Per cent of pounds.	Cumulative per cent.	Gallons.	Value.	Per cent of gallons.	Cumulative per cent.	Gallons.	Value.	Per cent of gallons.	Cumulative per cent.
The Territory		504,566,000	\$18,025,515	100.0		14,066,401	\$8,000	100.0					
Hawaii	1	199,226,000	7,137,697	39.5	39.5	1,461,325	4,308	35.9	35.9				
Kauai	2	110,380,000	3,952,036	21.9	61.4	927,776	(²)	22.8	58.7				
Mauai	3	108,712,000	3,855,818	21.5	82.9	829,000	240	20.4	79.1				
Oahu	4	86,248,000	3,079,964	17.1	100.0	848,300	3,452	20.9	100.0				

LOUISIANA.

PARISHES.	SUGAR.				MOLASSES.				SIRUP.				
	Rank.	Pounds.	Value.	Per cent of pounds.	Cumulative per cent.	Gallons.	Value.	Per cent of gallons.	Cumulative per cent.	Gallons.	Value.	Per cent of gallons.	Cumulative per cent.
The State		156,072,199	\$6,399,187	100.0		6,213,859	\$782,271	100.0		1,552,641	\$428,684	100.0	
St. Mary	1	33,257,000	1,392,710	21.3	21.3	876,473	43,644	14.1	14.1	469,168	72,562	30.2	30.2
Terrebonne	2	24,069,500	932,259	15.8	37.1	777,965	81,028	12.5	26.6	15,582	4,549	1.0	31.2
Lafourche	3	19,069,200	787,679	12.2	49.3	719,180	105,122	11.5	38.1				
Assumption	4	11,819,499	496,154	7.6	56.9	616,003	117,822	9.9	48.0	177,065	36,529	11.5	42.7
St. James	5	10,951,100	435,856	7.0	63.9	520,149	96,864	8.4	56.4	24,795	7,735	1.6	44.3
St. Charles	6	9,803,190	405,407	6.3	70.2	553,605	60,969	8.9	65.3				
Iberville	7	8,806,200	375,508	5.7	75.9	506,392	86,474	8.1	73.4	40,473	17,210	3.2	47.5
St. John the Baptist	8	6,596,500	293,787	4.2	80.1	396,288	81,710	6.4	79.8	42,540	14,889	2.7	50.2
Iberia	9	6,214,800	256,142	4.0	84.1	234,025	9,028	3.8	83.6	57,932	19,888	3.7	53.9
Ascension	10	5,366,300	228,054	3.4	87.5	227,568	34,759	3.7	87.3	5,075	1,731	0.4	54.3
Plaquemines	11	4,863,300	198,201	3.1	90.6	119,941	6,895	1.9	89.2				
West Baton Rouge	12	3,777,000	151,264	2.4	93.0	291,764	20,460	4.7	93.9	136,758	44,803	8.8	63.1
Jefferson	13	3,267,600	132,021	2.1	95.1	138,755	10,677	2.2	96.1	150	75	(²)	
Orleans	14	2,288,200	97,795	1.5	96.6	66,800	7,501	1.1	97.2	35,000	10,500	2.3	65.4
St. Martin	15	1,266,000	55,978	0.8	97.4	38,000	1,525	0.6	97.8	11,415	3,548	0.7	66.1
St. Bernard	16	1,242,000	50,916	0.8	98.2	23,000	747	0.4	98.2				
East Baton Rouge	17	800,000	35,000	0.5	98.7	32,000	2,560	0.5	98.7	15,755	6,402	1.0	67.1
Lafayette	18	522,000	21,417	0.4	99.1	2,414	566	(²)		26,140	7,676	1.7	68.8
Rapides	19	503,800	21,637	0.3	99.4	22,307	669	0.4	99.1	25,330	9,492	1.6	70.4
St. Landry	20	302,300	15,000	0.2	99.6	38,850	9,336	0.5	99.6	18,294	20,560	3.8	74.2
Avoyelles	21	321,300	13,617	0.2	99.8	11,100	620	0.2	99.8	59,564	6,265	1.3	75.5
Vermilion	22	296,200	11,544	0.2	100.0	8,985	2,240	0.1	99.9	8,598	3,002	0.6	76.1
Pointe Coupee	23	24,400	1,050	(²)		3,900	1,465	0.1	100.0	87,225	30,416	5.6	81.7
Other parishes		4,000	191	(²)						234,582	116,792	18.3	100.0

¹Including 8,780,740 gallons which had no selling value.

²Less than one-tenth of 1 per cent.

³Of no value.

STATISTICS OF AGRICULTURE.

TABLE 4.—QUANTITY AND VALUE OF ALL SUGAR, MOLASSES, AND SIRUP MADE ON PLANTATIONS AND IN FACTORIES FROM SUGAR CANE HARVESTED IN 1899, WITH PERCENTAGES, BY STATES AND TERRITORIES, BY ISLANDS IN HAWAII, AND BY PARISHES IN LOUISIANA, IN DESCENDING ORDER OF POUNDS OF SUGAR MADE.

STATES AND TERRITORIES.	SUGAR.				MOLASSES.				SIRUP.				
	Rank.	Pounds.	Value.	Per cent of pounds.	Cumulative per cent.	Gallons.	Value.	Per cent of gallons.	Cumulative per cent.	Gallons.	Value.	Per cent of gallons.	Cumulative per cent.
The United States.....		864,647,511	\$32,514,089	100.0		116,505,119	\$1,292,103	100.0		213,221,247	\$4,429,633	100.0	
Hawaii.....	1	542,098,500	19,254,773	62.7	62.7	14,702,292	8,000	28.5	28.5				
Louisiana.....	2	319,166,896	13,099,559	36.9	99.6	11,703,877	1,277,384	70.9	99.4	2,480,856	564,842	18.8	18.8
Texas.....	3	2,789,250	134,074	0.8	99.9	98,950	6,719	0.6	100.0	888,637	365,819	6.7	25.5
Florida.....	4	284,800	12,744							1,687,452	512,038	12.8	38.3
Georgia.....	5	226,730	9,176							3,226,367	1,033,922	24.4	62.7
South Carolina.....	6	49,590	2,256	0.1	100.0					805,064	310,799	6.1	68.8
Mississippi.....	7	18,930	893							1,418,219	618,975	10.7	79.5
Alabama.....	8	13,765	612							2,672,438	1,003,211	20.2	99.7
Arkansas.....	9	50	2							44,819	18,791	0.8	100.0
North Carolina.....	10									1,957	1,008		
Arizona.....	11									438	228		

HAWAII.

ISLANDS.	SUGAR.				MOLASSES.				SIRUP.				
	Rank.	Pounds.	Value.	Per cent of pounds.	Cumulative per cent.	Gallons.	Value.	Per cent of gallons.	Cumulative per cent.	Gallons.	Value.	Per cent of gallons.	Cumulative per cent.
The Territory.....		542,098,500	\$19,254,773	100.0		14,702,292	\$8,000	100.0					
Hawaii.....	1	221,174,000	7,890,969	40.8	40.8	1,957,028	4,308	41.6	41.6				
Kauai.....	2	121,022,500	4,278,677	22.3	63.1	1,019,534	(³)	21.7	63.3				
Mauai.....	3	108,712,000	3,855,818	20.1	83.2	829,000	240	17.6	80.9				
Oahu.....	4	91,190,000	3,229,309	16.8	100.0	896,730	3,452	19.1	100.0				

LOUISIANA.

PARISHES.	SUGAR.				MOLASSES.				SIRUP.				
	Rank.	Pounds.	Value.	Per cent of pounds.	Cumulative per cent.	Gallons.	Value.	Per cent of gallons.	Cumulative per cent.	Gallons.	Value.	Per cent of gallons.	Cumulative per cent.
The State.....		319,166,896	\$13,099,559	100.0		11,703,877	\$1,277,384	100.0		2,480,856	\$564,842	100.0	
St. Mary.....	1	53,318,558	2,210,883	16.7	16.7	1,354,281	69,102	11.6	11.6	678,095	106,727	27.1	27.1
Terrebonne.....	2	39,961,523	1,535,932	12.5	29.2	1,133,339	107,998	9.7	21.3	16,582	4,549	0.6	27.7
Lafourche.....	3	38,781,836	1,604,406	12.1	41.3	1,316,913	173,904	11.2	32.5				
Assumption.....	4	27,045,904	1,120,613	8.5	49.8	1,402,527	257,568	12.0	44.5	679,435	92,423	27.4	55.1
Iberia.....	5	22,249,603	930,624	7.0	56.8	808,250	33,960	6.9	51.4	123,700	26,164	5.0	60.1
St. James.....	6	21,878,251	907,381	6.9	63.7	915,264	128,946	7.8	59.2	35,600	11,116	1.4	61.5
Plaquemines.....	7	16,609,871	679,214	5.2	68.9	406,536	21,264	3.5	62.7				
St. John the Baptist.....	8	16,461,272	640,391	5.2	74.1	725,188	118,440	6.2	68.9	42,510	14,899	1.7	63.2
Iberville.....	9	14,609,863	622,099	4.6	78.7	809,342	130,371	6.9	75.8	49,478	17,210	2.0	65.2
St. Charles.....	10	13,310,571	550,557	4.2	82.9	761,450	80,362	6.5	82.3				
Ascension.....	11	12,007,755	505,427	3.8	86.7	523,387	40,121	4.5	86.8	5,675	1,731	0.2	65.4
Lafayette.....	12	9,221,524	387,703	2.9	89.6	349,029	17,821	3.0	89.8	26,140	7,676	1.1	66.5
West Baton Rouge.....	13	7,765,249	309,036	2.4	92.0	352,250	35,177	3.0	92.8	161,856	49,767	6.1	72.6
St. Martin.....	14	6,164,989	264,549	1.9	93.9	174,250	6,465	1.5	94.3	17,880	6,492	0.7	73.3
Jefferson.....	15	4,790,261	197,746	1.5	95.4	196,086	14,065	1.7	96.0	180	75		
East Baton Rouge.....	16	3,037,500	131,435	1.0	96.4	100,000	5,300	0.9	96.9	15,755	6,402	0.7	74.0
Rapides.....	17	2,984,825	127,450	0.9	97.3	133,900	4,017	1.1	98.0	25,330	9,492	1.0	75.0
Orleans.....	18	2,868,000	123,935	0.9	98.2	85,000	10,145	0.7	98.7	35,000	10,500	1.4	76.4
St. Bernard.....	19	2,700,000	110,687	0.8	99.0	50,000	1,625	0.4	99.1				
Vermilion.....	20	2,567,971	109,097	0.8	99.8	40,935	3,990	0.3	99.4	8,598	3,092	0.4	76.8
St. Landry.....	21	362,280	15,000	0.1	99.9	33,850	9,336	0.3	99.7	170,811	39,800	6.9	83.7
Ayoelles.....	22	319,800	13,542	0.1	100.0	11,100	620	0.1	99.8	20,564	6,265	0.8	84.5
Pointe Coupee.....	23	155,000	5,751	(⁴)		21,000	6,787	0.2	100.0	99,000	34,350	4.0	88.5
Other parishes.....		4,000	191	(⁴)						284,582	116,792	11.5	100.0

¹ Including 4,416,631 gallons with no selling value.² Not including 1,923,446 gallons, valued at \$327,391, later converted into sugar in other mills.³ With no commercial value.⁴ Less than one-tenth of 1 per cent.

TABLE 5.—VALUE OF SUGAR AND MOLASSES, AND QUANTITY OF MOLASSES AND OF SPECIFIED KINDS OF SUGAR MADE BY THE LEADING PLANTERS AND FACTORIES FROM CANE HARVESTED IN 1898 AND 1899.

A.—Made from Cane Harvested in 1898.

COUNTIES.	Value of all sugar made.	Value of all molasses made.	POUNDS OF SUGAR MADE.					Gallons of molasses made.
			Total.	Firsts.	Seconds.	Thirds.	Open kettle sugar.	
Louisiana	\$22,197,168	\$1,681,897	556,994,942	437,370,968	87,523,291	14,196,078	17,904,605	24,164,680
St. Mary	4,085,638	76,686	104,769,079	81,177,606	15,113,737	5,441,736	36,000	3,103,012
Lafourche	2,234,488	184,361	56,690,430	43,902,005	10,074,928	698,497	1,955,000	2,545,380
Assumption	2,100,972	313,833	52,324,722	36,062,794	7,720,019	320,266	8,221,643	2,517,049
Terrebonne	1,961,560	93,799	50,288,838	41,265,549	6,845,833	1,162,056	1,015,400	1,787,486
St. James	1,784,948	188,763	43,287,268	33,545,017	8,387,021	676,119	679,120	2,289,550
Iberville	1,448,634	222,831	35,385,355	29,268,766	5,395,383	59,463	661,753	2,142,172
Iberla	1,355,198	31,531	34,807,406	27,202,914	5,582,517	2,021,975	.....	1,461,400
Ascension	1,324,425	128,729	32,771,583	26,437,535	6,701,082	134,580	408,386	1,655,643
St. John the Baptist	1,042,807	120,224	25,945,088	21,009,984	4,935,104	.....	.....	1,358,797
West Baton Rouge	1,021,768	81,394	25,780,467	19,100,324	5,182,205	1,043,938	460,000	1,850,500
Plaquemines	845,841	29,634	20,524,069	19,121,119	1,402,950	.....	.....	753,520
St. Charles	676,301	51,486	16,021,105	13,144,427	2,083,958	260,397	1,482,323	738,900
St. Martin	446,904	19,500	11,147,467	8,403,849	2,064,044	602,574	77,000	408,600
Rapides	338,134	17,250	8,400,506	5,847,465	1,445,506	813,535	294,000	420,000
Pointe Coupee	322,804	31,762	7,971,420	5,742,017	1,629,403	.....	1,200,000	400,700
Lafayette	304,410	9,199	7,089,130	6,449,538	1,097,592	142,000	.....	389,975
Jefferson	264,935	14,953	6,487,076	4,846,026	802,600	583,444	255,000	255,418
Orleans	177,845	8,329	4,554,353	3,899,033	598,803	56,517	.....	176,360
East Baton Rouge	163,500	6,875	3,928,000	2,820,000	990,000	118,000	.....	187,500
Averelles	100,004	3,535	2,539,000	1,928,000	580,600	31,000	.....	70,500
St. Bernard	98,400	2,250	2,112,000	2,112,000	.....	.....	.....	75,000
Vermilion	55,706	3,828	1,637,780	950,000	450,000	30,000	207,780	73,535
St. Landry	41,940	21,145	1,026,200	75,000	.....	.....	951,200	93,702
Texas	527,060	22,760	11,794,853	10,085,439	1,455,869	253,515	.....	768,250
Fort Bend	446,425	18,375	9,906,625	8,629,519	1,092,213	184,893	.....	735,000
Brazoria	64,857	4,385	1,583,532	1,249,920	264,660	68,652	.....	33,250
Cameron	16,678	.....	304,696	206,000	98,696	.....	.....	.....

B.—Made from Cane Harvested in 1899.

STATES AND TERRITORIES.	Value of all sugar made.	Value of all molasses made.	POUNDS OF SUGAR MADE.					Gallons of molasses made.
			Total.	Firsts.	Seconds.	Thirds.	Open kettle sugar.	
Hawaii	\$19,254,773	\$8,000	542,008,500	466,254,500	75,310,000	534,000	.....	14,702,202
Louisiana ²	13,099,559	1,277,884	319,166,393	251,789,270	47,984,887	10,517,310	8,874,920	11,703,877
Texas	183,043	6,710	2,766,600	2,418,600	301,000	47,000	.....	128,950

¹Including 4,416,631 gallons with no selling value.

²Including quantity produced on 7 small plantations.

STATISTICS OF AGRICULTURE.

TABLE 6.—FARMS REPORTING SUGAR CANE, AND ACREAGE OF CANE, WITH PERCENTAGES, BY STATES AND TERRITORIES, BY PARISHES IN LOUISIANA, AND BY ISLANDS IN HAWAII, IN DESCENDING ORDER OF ACREAGE IN 1899, SUMMARY 1880 TO 1900.

STATES AND TERRITORIES.	CENSUS 1900.					CENSUS 1890.				CENSUS 1880.				
	Rank.	Total number of farms.	Farms reporting sugar cane.	Acres of cane.	Per cent of total acres.	Cumulative per cent.	Rank.	Acres of cane.	Per cent of total acres.	Cumulative per cent.	Rank.	Acres of cane.	Per cent of total acres.	Cumulative per cent.
The United States		5,739,657	181,566	452,673	100.0		274,975	100.0			227,776	100.0		
Louisiana.....	1	115,969	11,774	276,966	61.2	61.2	1	193,694	70.4	70.4	1	181,592	79.7	79.7
Hawaii ¹	2	2,273	184	65,687	14.5	75.7								
Alabama.....	3	228,220	44,689	32,871	7.3	83.0	3	19,415	7.1	77.5	5	6,627	2.9	82.6
Georgia.....	4	224,691	46,385	26,056	5.8	88.8	2	20,238	7.4	84.9	2	15,053	6.6	89.2
Texas.....	5	352,190	15,694	17,824	3.9	92.7	4	16,284	5.9	90.8	3	10,224	4.5	93.7
Florida.....	6	40,814	17,314	13,800	3.0	95.7	6	9,345	3.4	94.2	4	7,938	3.5	97.2
Mississippi.....	7	220,803	26,300	11,552	2.6	98.3	5	12,694	4.6	98.8	6	4,555	2.0	99.2
South Carolina.....	8	155,365	18,776	7,342	1.6	99.9	7	3,305	1.2	100.0	7	1,787	0.8	100.0
Arkansas.....	9	178,694	458	460	0.1	100.0								
Arizona.....	10	5,809	7	50	(²)									
Indian Territory.....	11	45,505	25	35	(²)									
North Carolina.....	12	224,637	57	25	(²)									
New Mexico.....	13	12,311	3	5	(²)									
Other states and territories.....		3,937,386												

LOUISIANA.

PARISHES.	CENSUS 1900.					CENSUS 1890.				CENSUS 1880.				
	Rank.	Total number of farms.	Farms reporting sugar cane.	Acres of cane.	Per cent of total acres.	Cumulative per cent.	Rank.	Acres of cane.	Per cent of total acres.	Cumulative per cent.	Rank.	Acres of cane.	Per cent of total acres.	Cumulative per cent.
The State		115,969	11,774	276,966	100.0		193,694	100.0			181,492	100.0		
St. Mary.....	1	609	486	44,137	15.9	15.9	1	24,519	12.7	12.7	1	17,396	9.6	9.6
Lafourche.....	2	1,085	277	28,674	10.4	26.3	7	13,457	7.0	19.7	8	12,249	6.8	16.4
Assumption.....	3	456	282	28,023	10.1	36.4	2	20,293	10.4	30.1	6	12,945	7.1	23.5
Terrebonne.....	4	748	486	27,177	9.8	46.2	4	14,558	7.5	37.6	4	15,800	8.5	32.0
St. James.....	5	361	215	22,280	8.0	54.2	6	14,268	7.4	45.0	5	15,227	8.4	40.4
Iberia.....	6	1,828	1,247	19,449	7.0	61.2	3	12,016	6.2	51.2	11	6,501	3.6	44.0
Iberville.....	7	746	206	17,453	6.3	67.5	8	18,562	9.6	60.8	2	16,687	9.2	53.2
St. John the Baptist.....	8	311	135	14,763	5.3	72.8	10	8,170	4.2	65.0	9	9,453	5.2	58.4
Ascension.....	9	1,200	52	11,454	4.1	76.9	5	14,479	7.5	72.5	3	15,545	8.6	67.0
St. Charles.....	10	333	179	9,711	3.5	80.4	12	5,679	2.9	75.4	10	7,787	4.3	71.3
Plaquemines.....	11	728	119	8,605	3.1	83.5	11	6,795	3.5	78.9	7	12,684	7.0	78.3
West Baton Rouge.....	12	769	85	8,500	3.1	86.6	9	10,848	5.6	84.5	12	6,400	3.5	81.8
Lafayette.....	13	3,088	872	8,104	2.9	89.5					23	783	0.4	82.2
St. Martin.....	14	2,032	601	5,546	2.0	91.5	14	3,087	1.6	86.1	16	3,525	1.9	84.1
East Baton Rouge.....	15	2,477	56	4,421	1.6	93.1	18	2,318	1.2	87.3	15	3,584	2.0	86.1
Jefferson.....	16	461	36	3,613	1.3	94.4	15	2,786	1.4	88.7	13	6,136	3.4	89.5
Vermilion.....	17	2,656	496	3,230	1.2	95.6	19	2,318	1.2	89.9	20	1,574	0.9	90.4
St. Bernard.....	18	210	39	1,998	0.7	96.3	21	1,615	0.8	90.7	17	2,879	1.6	92.0
Poinc Coupee.....	19	3,772	36	1,786	0.7	97.0	13	3,931	2.0	92.7	14	6,027	3.3	95.3
Rapides.....	20	4,249	290	1,729	0.6	97.6	20	2,285	1.2	93.9	19	1,875	1.0	96.3
Orleans.....	21	836	11	1,610	0.6	98.2	22	1,013	0.5	94.4	21	1,162	0.6	96.9
St. Landry.....	22	7,549	375	1,581	0.6	98.8	17	2,354	1.2	95.6	18	2,711	1.5	98.4
Avoyelles.....	23	4,674	189	688	0.3	99.1	16	2,411	1.3	96.9	22	890	0.5	98.9
Other parishes.....		74,841	5,104	2,484	0.9	100.0		5,996	3.1	100.0		2,082	1.1	100.0

HAWAII.

ISLANDS.	CENSUS 1900.					CENSUS 1890.				CENSUS 1880.				
	Rank.	Total number of farms.	Farms reporting sugar cane.	Acres of cane.	Per cent of total acres.	Cumulative per cent.	Rank.	Acres of cane.	Per cent of total acres.	Cumulative per cent.	Rank.	Acres of cane.	Per cent of total acres.	Cumulative per cent.
The Territory ¹		2,273	184	65,687	100.0									
Hawaii.....	1	954	152	35,096	53.4	53.4								
Kauai.....	2	399	13	12,947	19.7	73.1								
Maul.....	3	333	10	10,534	16.1	89.2								
Oahu.....	4	507	8	6,910	10.5	99.7								
Lanai.....	5	2	1	200	0.3	100.0								
Other islands.....		28												

¹ Acquired in 1898.

² Less than one-tenth of 1 per cent.

GENERAL TABLES.

TABLE 7.—PRODUCTION OF ALL SUGAR, MOLASSES, AND SIRUP, MADE FROM SUGAR CANE, BY STATES AND TERRITORIES, BY ISLANDS IN HAWAII, AND BY PARISHES IN LOUISIANA, IN DESCENDING ORDER OF POUNDS OF SUGAR MADE IN 1890, SUMMARY 1880 TO 1900.

STATES AND TERRITORIES.	CENSUS 1900.					CENSUS 1890.					CENSUS 1880.				
	Rank.	Sugar in pounds.	Molasses and sirup in gallons.	Per cent of total sugar.	Per cent of total molasses and sirup.	Rank.	Sugar in pounds.	Molasses and sirup in gallons.	Per cent of total sugar.	Per cent of total molasses and sirup.	Rank.	Sugar in pounds.	Molasses and sirup in gallons.	Per cent of total sugar.	Per cent of total molasses and sirup.
The United States.....	.....	804,647,511	29,726,366	100.0	100.0	.....	801,284,395	25,409,228	100.0	100.0	.....	178,872,000	16,573,273	100.0	100.0
Hawaii ¹	1	542,098,500	4,702,292	62.7	15.8	1	202,124,050	14,341,081	97.0	56.4	1	171,706,000	11,696,248	96.0	70.6
Louisiana.....	2	319,166,396	14,184,733	36.9	47.7	2	5,482,030	2,150,339	1.8	8.5	2	4,051,000	810,005	2.8	4.9
Texas.....	3	2,789,250	987,587	0.3	3.3	3	1,692,015	1,441,744	0.6	5.7	3	1,273,000	1,029,868	0.7	6.2
Florida.....	4	284,300	1,687,452	5.7	10.0	4	1,307,625	3,223,194	0.4	12.7	4	601,000	1,565,784	0.3	9.5
Georgia.....	5	226,730	3,226,367	10.0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
South Carolina.....	6	49,590	805,054	0.1	2.7	5	219,980	386,615	0.1	1.5	5	229,000	188,944	0.1	0.8
Mississippi.....	7	18,930	1,413,219	.....	4.8	6	67,860	1,624,024	(²)	6.0	7	18,000	536,625	(²)	3.2
Alabama.....	8	13,765	2,672,438	.....	9.0	6	390,835	2,833,281	0.1	9.2	6	94,000	795,199	0.1	4.8
Arkansas.....	9	60	44,819	.....	0.1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
North Carolina.....	10	.....	1,957	.....	(²)	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Arizona.....	11	.....	438	.....	(²)	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

HAWAII.

ISLANDS.	CENSUS 1900.					CENSUS 1890.					CENSUS 1880.				
	Rank.	Sugar in pounds.	Molasses and sirup in gallons.	Per cent of total sugar.	Per cent of total molasses and sirup.	Rank.	Sugar in pounds.	Molasses and sirup in gallons.	Per cent of total sugar.	Per cent of total molasses and sirup.	Rank.	Sugar in pounds.	Molasses and sirup in gallons.	Per cent of total sugar.	Per cent of total molasses and sirup.
The Territory.....	.....	542,098,500	4,702,292	100.0	100.0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Hawaii.....	1	221,174,000	1,957,028	40.8	41.6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Kauai.....	2	121,022,500	1,019,534	22.3	21.7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Maua.....	3	108,712,000	823,000	20.1	17.6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Oahu.....	4	91,190,000	896,730	16.8	19.1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

LOUISIANA.

PARISHES.	CENSUS 1900.					CENSUS 1890.					CENSUS 1880.				
	Rank.	Sugar in pounds.	Molasses and sirup in gallons.	Per cent of total sugar.	Per cent of total molasses and sirup.	Rank.	Sugar in pounds.	Molasses and sirup in gallons.	Per cent of total sugar.	Per cent of total molasses and sirup.	Rank.	Sugar in pounds.	Molasses and sirup in gallons.	Per cent of total sugar.	Per cent of total molasses and sirup.
The State.....	.....	319,166,396	14,184,733	100.0	100.0	.....	202,124,050	14,341,081	100.0	100.0	.....	171,706,000	11,696,248	100.0	100.0
St. Mary.....	1	53,318,558	2,027,376	16.7	14.3	1	84,035,000	919,331	11.7	6.4	1	16,536,000	913,843	9.6	7.8
Terrebonne.....	2	39,961,623	1,148,921	12.5	8.1	5	22,981,000	802,169	7.9	5.0	5	13,751,000	897,355	8.0	7.7
Lafourche.....	3	38,781,836	1,316,913	12.1	9.3	6	21,651,950	1,484,566	7.4	10.4	8	11,185,000	882,043	6.5	7.1
Assumption.....	4	27,045,904	2,081,962	8.5	14.7	2	33,718,200	1,597,982	11.5	11.1	7	11,931,000	789,898	6.9	6.8
Iberia.....	5	22,249,603	932,040	7.0	6.6	10	11,982,350	445,766	4.1	3.1	11	6,899,000	297,654	3.7	2.5
St. James.....	6	21,878,251	950,864	6.9	6.7	7	21,077,000	1,096,194	7.2	7.6	3	14,251,000	1,017,352	8.3	8.7
Plaquemines.....	7	16,609,871	406,536	5.2	2.9	11	11,788,800	450,260	4.0	3.1	4	14,017,000	970,324	8.2	8.3
St. John the Baptist.....	8	16,461,272	767,728	5.2	5.4	9	12,569,250	675,070	4.3	4.7	9	6,614,000	586,563	6.6	5.0
Iberville.....	9	14,609,863	868,815	4.6	6.1	3	31,036,800	1,647,795	10.6	11.5	2	15,273,000	1,220,518	8.9	10.4
St. Charles.....	10	13,310,671	761,460	4.2	5.4	12	9,037,200	379,729	3.1	2.6	10	8,592,000	559,755	5.2	4.8
Ascension.....	11	12,007,755	520,062	3.8	3.7	4	27,187,100	1,390,931	9.3	9.7	6	18,427,000	848,331	7.8	7.3
Lafayette.....	12	9,221,524	375,169	2.9	2.6	23	481,000	36,760	0.1	0.3	23	681,000	30,889	0.4	0.3
West Baton Rouge.....	13	7,765,249	504,106	2.4	3.6	8	20,272,500	904,099	6.9	6.7	12	6,325,000	471,965	3.7	4.0
St. Martin.....	14	6,154,989	192,130	1.9	1.4	16	4,282,500	136,951	1.6	1.4	17	3,258,000	181,617	1.9	1.6
Jefferson.....	15	4,790,261	190,236	1.5	1.4	14	6,103,400	178,825	1.8	1.2	13	6,041,000	529,630	3.5	4.5
East Baton Rouge.....	16	3,037,560	115,755	1.0	0.8	17	3,801,700	164,182	1.1	1.1	16	3,366,000	202,650	2.0	2.5
Rapides.....	17	2,984,825	169,230	0.9	1.1	18	2,978,400	182,524	1.0	1.3	19	1,832,000	134,531	1.1	1.1
Orleans.....	18	2,868,000	120,000	0.9	0.8	22	1,543,200	81,202	0.5	0.6	22	864,000	72,800	0.5	0.6
St. Bernard.....	19	2,700,000	50,000	0.8	0.4	21	1,981,800	82,500	0.7	0.6	15	3,373,000	149,680	2.0	1.3
Vermilion.....	20	2,567,971	49,533	0.8	0.3	19	2,851,500	136,300	1.0	1.0	21	1,205,000	66,672	0.7	0.6
St. Landry.....	21	362,280	204,661	0.1	1.4	20	2,185,350	136,287	0.8	1.2	18	2,877,000	190,937	1.7	1.6
Avoyelles.....	22	319,800	31,604	0.1	0.2	15	4,499,800	227,815	1.5	1.6	20	1,374,000	90,835	0.8	0.8
Pointe Coupee.....	23	155,000	120,000	(²)	0.8	18	5,503,200	346,310	1.9	2.4	14	4,933,000	334,985	2.9	2.9
Other parishes.....	24	4,000	284,532	(²)	2.0	.....	139,950	688,617	0.1	4.8	.....	263,000	215,081	0.1	1.8

¹ Acquired in 1898

² Less than one-tenth of 1 per cent.

STATISTICS OF AGRICULTURE.

TABLE 8.—PRODUCTION OF SUGAR, MOLASSES, AND SIRUP, MADE FROM SUGAR CANE, WITH PERCENTAGES, BY STATES, AND BY PARISHES IN LOUISIANA, IN DESCENDING ORDER OF POUNDS OF SUGAR MADE IN 1899, SUMMARY 1850 TO 1870.

STATES.	Rank in 1899. ¹	CENSUS 1870.					CENSUS 1860.					CENSUS 1850.					
		Rank.	Sugar in pounds.	Molasses and sirup in gallons.	Per cent of total sugar.	Per cent of total molasses and sirup.	Rank.	Sugar in pounds.	Molasses and sirup in gallons.	Per cent of total sugar.	Per cent of total molasses and sirup.	Rank.	Sugar in pounds.	Molasses and sirup in gallons.	Per cent of total sugar.	Per cent of total molasses and sirup.	
The United States.....			87,043,000	6,589,094	100.0	100.0		230,982,000	14,954,005	100.0	100.0		247,577,000	12,060,230	100.0	100.0	
Hawaii territory.....	1																
Louisiana.....	2	1	80,706,000	4,585,150	92.7	69.6	1	221,726,000	13,439,772	96.0	89.9	1	226,001,000	10,931,177	91.3	90.6	
Texas.....	3	2	2,020,000	246,062	2.3	3.8	2	5,099,000	408,358	2.2	2.7	3	7,351,000	441,038	3.0	3.7	
Florida.....	4	5	952,000	344,339	1.1	5.2	3	1,669,000	436,367	0.7	2.9	4	2,750,000	352,893	1.1	2.9	
Georgia.....	5	6	644,000	553,192	0.7	8.4	4	1,167,000	546,749	0.5	3.6	5	1,642,000	216,160	0.7	1.8	
South Carolina.....	6	4	1,055,000	436,882	1.2	6.6	7	198,000	15,144	0.1	0.1	6	671,000	15,904	0.3	0.1	
Mississippi.....	7	8	49,000	152,164	0.1	2.3	5	506,000	10,016	0.2	0.1	7	388,000	18,318	0.1	0.2	
Alabama.....	8	11	31,000	166,009	(?)	2.5	8	175,000	85,115	0.1	0.6	2	8,242,000	83,428	3.3	0.7	
Arkansas.....	9	7	92,000	72,008	0.1	1.1										(?)	
North Carolina.....	10	10	35,000	33,888	0.1	0.5	9	38,000	12,494	(?)	0.1			704			(?)
Tennessee.....		3	1,410,000		1.6		10	2,000		(?)		9	248,000		0.1		
Missouri.....		9	49,000		0.1		6	402,000		0.2					0.1		
Kentucky.....												8	284,000		0.1		

LOUISIANA.

PARISHES.	Rank in 1899. ¹	CENSUS 1870.					CENSUS 1860.					CENSUS 1850.				
		Rank.	Sugar in pounds.	Molasses and sirup in gallons.	Per cent of total sugar.	Per cent of total molasses and sirup.	Rank.	Sugar in pounds.	Molasses and sirup in gallons.	Per cent of total sugar.	Per cent of total molasses and sirup.	Rank.	Sugar in pounds.	Molasses and sirup in gallons.	Per cent of total sugar.	Per cent of total molasses and sirup.
The State.....			80,706,000	4,585,150	100.0	100.0		221,726,000	13,439,772	100.0	100.0		226,001,000	10,931,177	100.0	100.0
St. Mary.....	1	4	6,591,000	341,445	8.2	7.4	1	30,731,000	43,336	13.9	0.9	1	24,765,000	897,660	11.0	8.2
Terrebonne.....	2	5	6,597,000	366,282	8.1	8.0	8	17,022,000	1,210,603	7.7	9.0	10	9,171,000	435,290	4.1	4.0
Lafourche.....	3	3	7,128,000	366,685	8.8	8.0	5	14,736,000	1,001,210	6.0	7.5	9	10,655,000	845,126	4.4	3.1
Assumption.....	4	1	9,558,000	499,135	11.8	10.9	2	17,707,000	1,230,584	8.0	9.2	4	17,160,000	930,185	7.6	8.5
Iberia.....	5	14	1,854,000	102,495	2.3	2.2										
St. James.....	6	7	6,265,000	347,722	7.8	7.6	6	13,736,000	1,193,160	6.2	8.9	3	21,470,000	926,438	9.6	8.6
Plaquemines.....	7	2	7,723,000	421,562	9.6	9.2	7	12,607,000	819,690	5.7	6.1	5	16,835,000	589,130	7.4	6.4
St. John the Baptist.....	8	8	4,902,000	346,100	6.1	7.5	16	4,981,000	462,250	2.2	3.4	7	11,935,000	638,230	5.3	5.8
Iberville.....	9	9	4,907,000	323,600	6.1	7.1	10	10,828,000	214,982	4.9	1.6	2	23,208,000	1,310,750	10.3	12.0
St. Charles.....	10	19	3,914,000	247,120	4.8	5.4	14	7,067,000	543,500	3.2	4.0	8	10,206,000	531,300	4.5	4.9
Ascension.....	11	6	6,423,000	308,587	8.0	6.7	4	16,087,000	881,297	7.3	6.6	6	13,438,000	554,975	5.9	5.1
Lafayette.....	12	23	128,000	6,715	0.2	0.1	21	1,003,000	58,470	0.4	0.4	20	2,629,000	95,164	1.2	0.9
West Baton Rouge.....	13	18	806,000	50,740	1.0	1.1	11	10,176,000	724,570	4.6	5.4	13	7,920,000	518,870	3.5	4.7
St. Martin.....	14	16	1,494,000	75,740	1.9	1.7	13	7,499,000	624,329	3.4	3.9	10	4,188,000	237,160	1.9	2.2
Jefferson.....	15	12	2,196,000	136,200	2.7	3.0	12	9,407,000	702,300	4.3	5.2	11	8,897,000	430,580	3.9	3.9
East Baton Rouge.....	16	17	833,000	59,497	1.0	1.3	15	5,477,000	412,680	2.5	3.1	14	7,074,000	407,358	3.1	3.7
Rapides.....	17	11	3,324,000	212,860	4.1	4.6	9	12,087,000	854,585	5.4	6.4	16	4,613,000	488,170	2.0	4.0
Orleans.....	18	19	751,000	17,910	0.9	0.4	19	2,050,000	134,000	0.9	1.0	21	1,495,000	52,505	0.7	0.5
St. Bernard.....	19	20	686,000	42,580	0.9	0.9						18	4,307,000	173,000	1.9	1.6
Vermilion.....	20	22	259,000	10,165	0.3	0.2	20	1,550,000	3,100	0.7	(?)	22	871,000	31,720	0.4	0.3
St. Landry.....	21	13	1,988,000	118,110	2.5	2.6	18	3,437,000	339,610	1.5	2.5	15	5,951,000	317,970	2.6	2.9
Avoyelles.....	22	21	325,000	25,600	0.4	0.6	17	4,445,000	234,424	2.0	2.1	17	4,481,000	248,720	2.0	2.3
Pointe Coupee.....	23	16	1,548,000	113,210	1.9	2.5	8	12,187,000	1,342,195	5.5	10.0	12	8,560,000	321,546	3.8	2.9
Other parishes.....			506,000	45,090	0.6	1.0		6,846,000	458,987	3.1	3.4		6,512,000	499,930	2.9	4.6

¹ Ranked according to the number of pounds of sugar made in 1899.

² Less than one-tenth of 1 per cent.

TABLE 9.—ACREAGE, PRODUCTION, VALUE, AND PER CENT OF TOTAL VALUE OF SORGHUM CANE GROWN, AND OF SORGHUM SIRUP MADE ON FARMS IN 1899, WITH AVERAGES FOR 1899 AND 1880, BY STATES AND TERRITORIES.

STATES AND TERRITORIES.	Rank. ¹	Total number of farms.	Farms reporting sorghum.	Acres of cane.	TONS OF CANE.			Gallons of sirup made.	FARM VALUES OF PRODUCTS.			Per cent of total farm value.	AVERAGE NUMBER OF GALLONS OF SIRUP PER ACRE.	
					Total grown.	Crushed for sirup. ²	Sold.		Total.	Value of sirup.	Received from sales of cane.		1899	1880
The United States ³		5,799,657	146,621	293,152	1,910,046	1,618,343	291,703	16,972,783	\$6,103,102	\$5,288,083	\$815,019	100.0	58	58
North Atlantic division...	5	677,506	256	126	950	928	22	7,937	3,695	3,621	74	(4)	63	60
South Atlantic division...	3	962,225	123,626	54,152	371,896	350,435	20,961	3,683,892	1,267,710	1,208,115	59,595	20.8	68	56
North Central division...	2	2,196,567	125,022	92,166	586,791	498,176	88,615	5,238,973	1,916,270	1,676,081	240,189	31.4	57	56
South Central division...	1	1,658,166	197,164	145,812	944,370	762,656	181,723	7,984,920	2,887,262	2,373,383	513,879	47.3	55	61
Western division.....	4	242,908	553	806	6,530	6,148	382	57,061	28,165	26,883	1,282	0.5	64	48
Alabama.....	9	223,220	27,150	14,831	93,299	90,154	3,145	1,168,868	371,356	362,397	8,959	0.1	79	50
Alaska.....		12												
Arizona.....		5,809	52	133	953	912	41	9,031	4,882	4,700	182	0.1	68	70
Arkansas.....	7	178,694	26,927	17,684	122,779	122,406	373	1,223,691	368,816	367,741	1,076	6.0	69	68
California.....	29	72,542	54	140	1,085	1,079	6	8,671	3,788	3,778	10	0.1	62	67
Colorado.....	33	24,700	20	51	349	329	20	2,661	1,107	1,086	71	(4)	52	24
Connecticut.....		26,048												49
Delaware.....	28	9,687	198	150	1,001	1,001		8,952	3,175	3,175		0.1	60	34
District of Columbia.....		269												
Florida.....		40,814												51
Georgia.....	10	224,691	22,600	11,553	78,708	73,192	5,576	767,024	250,592	234,486	16,106	4.1	66	61
Hawaii.....		2,273												
Idaho.....	37	17,471	11	21	191	183	8	1,393	650	626	24	(4)	60	57
Illinois.....	12	264,151	16,203	9,158	84,326	79,161	5,165	625,939	223,344	209,087	14,257	3.7	68	72
Indiana.....	15	221,897	19,232	7,955	65,685	63,116	2,569	579,061	193,056	186,306	6,750	3.2	73	61
Indian Territory.....	18	45,505	2,329	6,689	22,811	7,879	14,932	97,381	70,279	23,211	41,068	1.1	15	
Iowa.....	13	228,622	10,529	8,287	58,347	48,314	10,033	521,212	218,999	190,695	28,304	3.6	63	84
Kansas.....	5	173,098	5,727	20,689	88,846	57,639	31,207	735,787	279,029	206,010	73,019	4.6	36	27
Kentucky.....	4	234,667	33,692	21,982	152,321	129,720	22,601	1,277,206	449,276	384,292	64,984	7.4	58	56
Louisiana.....	24	115,969	2,107	937	6,091	4,931	1,160	48,727	18,367	14,944	3,423	0.3	52	61
Maine.....		59,299												51
Maryland.....	32	46,012	144	63	435	331	104	4,058	1,873	1,559	314	(4)	64	58
Massachusetts.....		37,715												
Michigan.....	25	203,261	1,276	377	2,787	2,589	198	24,050	10,486	9,882	604	0.2	64	51
Minnesota.....	23	154,659	3,887	2,293	14,369	13,137	1,232	157,605	59,714	56,896	2,818	1.0	69	38
Mississippi.....	8	220,803	25,183	15,734	119,164	115,798	3,366	1,162,269	323,417	313,365	10,052	5.3	74	61
Missouri.....	2	284,886	48,951	30,907	201,165	178,999	22,166	1,990,987	660,624	597,657	62,967	10.8	64	75
Montana.....	41	13,370	1	2	14	14		100	70	70		(4)	50	
Nebraska.....	20	121,525	1,791	4,778	14,119	1,317	12,802	92,413	74,817	32,993	41,824	1.2	19	51
Nevada.....	35	2,184	21	30	162	162		1,465	733	733		(4)	49	68
New Hampshire.....		29,324												25
New Jersey.....	40	34,650	3	7	52	51	1	450	163	160	3	(4)	64	47
New Mexico.....	31	12,311	70	81	314	201	113	2,812	1,963	1,599	364	(4)	35	39
New York.....	38	226,720	20	14	105	105		973	371	371		(4)	70	73
North Carolina.....	6	224,637	48,214	29,227	112,056	106,076	5,980	1,419,579	446,807	429,814	17,983	7.3	70	53
North Dakota.....	39	45,332	7	10	41		41	114	181	47	134	(4)	11	
Ohio.....	19	276,719	12,418	5,037	38,759	36,904	1,855	841,523	126,781	121,130	5,651	2.1	68	73
Oklahoma.....	11	62,495	2,367	9,788	26,426	1,099	25,327	81,891	83,832	24,825	59,007	1.4	8	37
Oregon.....	34	35,837	33	39	300	289	11	2,473	1,193	1,150	43	(4)	63	60
Pennsylvania.....	30	224,248	233	105	793	772	21	6,514	3,161	3,090	71	(4)	62	69
Rhode Island.....		5,498												
South Carolina.....	16	155,355	18,332	7,250	49,530	45,941	3,589	478,190	178,323	168,038	10,285	2.9	66	49
South Dakota.....	27	52,022	112	196	1,384	989	395	9,859	4,795	3,650	1,145	0.1	50	40
Tennessee.....	1	224,623	45,461	31,364	220,523	204,637	21,886	2,047,655	647,129	585,336	61,793	10.6	65	63
Texas.....	3	352,190	31,948	26,803	174,965	86,032	88,933	877,232	554,799	291,272	263,518	9.1	33	61
Utah.....	26	19,337	283	371	3,080	2,979	101	28,017	13,435	12,993	442	0.2	76	86
Vermont.....		33,104												45
Virginia.....	14	167,886	19,304	8,039	73,137	70,817	2,320	555,321	196,915	190,903	6,012	3.2	69	57
Washington.....	36	33,202	8	28	82		82	438	344	198	146	(4)	16	56
West Virginia.....	17	92,874	14,834	6,870	56,469	53,077	3,392	450,777	189,935	180,140	9,795	3.1	66	66
Wisconsin.....	22	169,795	4,889	2,399	16,963	16,011	952	160,414	64,444	61,728	2,716	1.1	67	63
Wyoming.....		6,095												10

¹ The first column shows the rank of the state or territory when arranged according to acres.
² Estimated.

³ Data for Alaska and Hawaii included in totals for United States, but not in those for the five geographic divisions.

⁴ Less than one-tenth of 1 per cent.

STATISTICS OF AGRICULTURE.

TABLE 10.—ACREAGE OF SORGHUM CANE GROWN FOR SIRUP MAKING, WITH PERCENTAGES, BY STATES AND TERRITORIES IN DESCENDING ORDER OF ACREAGE IN 1899, SUMMARY 1890 AND 1900.

STATES AND TERRITORIES.	CENSUS 1900.				CENSUS 1890.			
	Rank.	Acres.	Per cent of total.	Cumulative per cent.	Rank.	Acres.	Per cent of total.	Cumulative per cent.
The United States.....		293,152	100.0			415,691	100.0	
South Central division.....	1	145,812	49.7	49.7	1	173,094	41.6	41.6
North Central division.....	2	92,166	31.4	81.1	2	165,290	39.8	81.4
South Atlantic division.....	3	51,162	18.5	99.6	3	75,256	18.1	99.5
Western division.....	4	896	0.3	99.9	4	1,482	0.3	99.8
North Atlantic division.....	5	126	0.1	100.0	5	619	0.2	100.0
Tennessee.....	1	31,364	10.7	10.7	2	40,330	9.7	9.7
Missouri.....	2	30,997	10.6	21.3	4	36,280	8.7	18.4
Texas.....	3	26,803	9.1	30.4	5	28,547	6.9	25.3
Kentucky.....	4	21,982	7.5	37.9	3	37,236	9.0	34.3
Kansas.....	5	20,689	7.1	45.0	1	55,795	13.4	47.7
North Carolina.....	6	20,227	6.9	51.9	7	24,093	5.8	53.5
Arkansas.....	7	17,684	6.0	57.9	6	27,371	6.6	60.1
Mississippi.....	8	15,734	5.4	63.3	11	15,822	3.8	63.9
Alabama.....	9	14,851	5.1	68.4	9	21,189	5.1	69.0
Georgia.....	10	11,553	3.9	72.3	8	22,089	5.3	74.3
Oklahoma.....	11	9,788	3.3	75.6	23	844	0.2	74.5
Illinois.....	12	9,158	3.1	78.7	12	15,384	3.7	78.2
Iowa.....	13	8,287	2.8	81.5	10	16,540	4.0	82.2
Virginia.....	14	8,039	2.7	84.2	16	9,578	2.3	84.5
Indiana.....	15	7,955	2.7	86.9	14	12,344	3.0	87.5
South Carolina.....	16	7,250	2.5	89.4	15	11,391	2.8	90.3
West Virginia.....	17	6,870	2.4	91.8	17	7,718	1.9	92.2
Indian Territory ¹	18	6,089	2.1	94.1				
Ohio.....	19	5,037	1.7	95.8	18	7,505	1.8	94.0
Nebraska.....	20	4,778	1.6	97.4	13	12,505	3.0	97.0
Wisconsin.....	21	2,399	0.8	98.2	20	3,450	0.8	97.8
Minnesota.....	22	2,283	0.8	99.0	19	3,890	0.9	98.7
Louisiana.....	23	937	0.3	99.3	21	1,755	0.4	99.1
Michigan.....	24	377	0.1	99.4	22	897	0.2	99.3
Utah.....	25	371	0.1	99.5	27	283	0.1	99.4
South Dakota.....	26	196	0.1	99.6	25	730	0.2	99.6
Delaware.....	27	150	0.1	99.7	29	100	(²)	
California.....	28	140			35	25	(²)	
Arizona.....	29	133			32	69	(²)	
Pennsylvania.....	30	105			26	488	0.1	99.7
New Mexico.....	31	81			30	90	(²)	
Maryland.....	32	63			31	82	(²)	
Colorado.....	33	51			24	818	0.2	99.9
Oregon.....	34	39			34	45	(²)	
Nevada.....	35	30	0.3	100.0	37	16	(²)	
Washington.....	36	28			36	20	(²)	
Idaho.....	37	21			33	54	(²)	
New York.....	38	14			28	114	(²)	
North Dakota.....	39	10						
New Jersey.....	40	7			39	6	(²)	
Montana.....	41	2						
Florida.....					28	205	0.1	100.0
Wyoming.....					38	12	(²)	
Connecticut.....					40	5	(²)	
Maine.....					41	3	(²)	
New Hampshire.....					42	2	(²)	
Vermont.....					43	1	(²)	
District of Columbia.....								
Massachusetts.....								
Rhode Island.....								
Alaska.....								
Hawaii.....								

¹ No report prior to 1900.² Less than one-tenth of 1 per cent.

TABLE 11.—PRODUCTION OF SORGHUM SIRUP IN GALLONS, WITH PERCENTAGES, BY STATES AND TERRITORIES, SUMMARY 1860 TO 1900.

STATES AND TERRITORIES.	CENSUS 1900.			CENSUS 1890.		CENSUS 1880.		CENSUS 1870.		CENSUS 1860.	
	Rank. ¹	Gallons.	Per cent of total.	Gallons.	Per cent of total.	Gallons.	Per cent of total.	Gallons.	Per cent of total.	Gallons.	Per cent of total.
The United States		16,972,788	100.0	24,285,219	100.0	28,444,202	100.0	16,050,089	100.0	6,749,123	100.0
North Atlantic division	5	7,937	0.1	42,765	0.2	78,343	0.2	245,481	1.5	24,076	0.4
South Atlantic division	3	3,683,892	21.7	4,248,604	17.5	3,663,954	12.9	2,383,922	14.9	641,796	9.5
North Central division	2	5,238,973	30.9	9,271,817	38.2	14,083,807	49.5	9,695,055	60.4	4,706,495	69.7
South Central division	1	7,984,920	47.0	10,610,324	43.8	10,548,968	37.1	3,651,824	22.7	1,348,464	20.0
Western division	4	57,061	0.3	62,219	0.3	74,070	0.3	73,807	0.5	28,292	0.4
Alabama	6	1,168,868	6.9	1,242,680	5.1	1,163,451	4.1	267,269	1.7	55,653	0.8
Alaska											
Arizona	27	9,031	0.1	4,808	(²)	5,771	(²)				
Arkansas	5	1,223,691	7.2	1,868,952	7.7	1,118,364	3.9	147,203	0.9	115,604	1.7
California	29	8,671	0.1	1,670	(²)	2,459	(²)	333	(²)	552	(²)
Colorado	33	2,061	(²)	19,964	0.1	3,227	(²)				
Connecticut				214	(²)	1,163	(²)	6,832	(²)	395	(²)
Delaware	28	8,952	0.1	3,371	(²)	25,136	0.1	65,908	0.4	1,613	(²)
District of Columbia											
Florida				10,461	0.1	10,199	(²)				
Georgia	9	767,024	4.5	1,342,803	5.6	981,152	3.5	374,027	2.3	103,490	1.5
Hawaii											
Idaho	36	1,393	(²)	3,093	(²)	36	(²)				
Illinois	11	625,989	3.7	1,110,183	4.6	2,265,093	8.0	1,960,473	12.2	806,589	12.0
Indiana	12	570,061	3.4	751,808	3.1	1,741,853	6.1	2,026,212	12.6	881,049	13.1
Indian Territory ³	20	97,381	0.6								
Iowa	14	521,212	3.1	1,386,605	5.7	2,064,020	7.3	1,218,636	7.6	1,211,512	18.0
Kansas	10	735,787	4.3	1,484,937	6.1	1,329,476	5.0	449,409	2.8	87,656	1.3
Kentucky	4	1,277,206	7.5	2,094,932	8.7	2,992,965	10.4	1,740,453	10.9	356,705	5.3
Louisiana	23	48,727	0.3	107,763	0.5	33,777	0.1	180	(²)		
Maine				152	(²)						
Maryland	31	4,058	(²)	4,732	(²)	19,837	0.1	28,563	0.2	907	(²)
Massachusetts						18	(²)				
Michigan	25	24,059	0.1	45,524	0.2	192,500	0.4	94,680	0.6	86,953	1.3
Minnesota	19	157,605	0.9	340,792	1.4	543,369	1.9	38,735	0.2	14,178	0.2
Mississippi	7	1,162,269	6.8	972,216	4.0	1,062,140	3.7	67,509	0.4	1,427	(²)
Missouri	2	1,990,987	11.7	2,721,240	11.2	4,129,595	14.5	1,730,171	10.8	796,111	11.8
Montana	41	100	(²)								
Nebraska	21	92,413	0.5	634,146	2.6	246,047	0.9	77,598	0.5	23,497	0.3
Nevada	35	1,465	(²)	930	(²)	350	(²)	3,651	(²)		
New Hampshire				50	(²)						
New Jersey	38	450	(²)	281	(²)	1,261	(²)	17,424	0.1	396	(²)
New Mexico	32	2,812	(²)	3,510	(²)	251	(²)	1,765	(²)	1,950	(²)
New York	37	973	(²)	8,305	(²)	1,134	(²)	7,832	0.1	516	(²)
North Carolina	3	1,419,570	8.4	1,268,946	5.2	964,662	3.4	621,855	3.9	263,475	3.9
North Dakota ⁴	40	114	(²)	10	(²)	17,012	0.1	1,230	(²)	20	(²)
Ohio	17	341,523	2.0	547,630	2.3	1,229,852	4.3	2,023,427	12.6	779,076	11.5
Oklahoma ⁵	22	81,891	0.5	31,299	0.1						
Oregon	34	2,473	(²)	2,706	(²)	2,283	(²)			315	(²)
Pennsylvania	30	6,514	(²)	33,708	0.2	69,707	0.2	213,373	1.3	22,749	0.3
Rhode Island								20	(²)	20	(²)
South Carolina	15	478,190	2.8	559,216	2.3	281,242	1.0	183,585	1.1	51,041	0.8
South Dakota ⁶	26	9,859	0.1	29,372	0.1						
Tennessee	1	2,047,655	12.1	2,542,533	10.5	3,770,212	13.3	1,254,701	7.8	706,663	10.5
Texas	8	877,232	5.2	1,749,910	7.2	432,059	1.5	174,599	1.1	112,412	1.7
Utah	24	28,017	0.2	24,293	0.1	58,221	0.2	67,446	0.4	25,475	0.4
Vermont				45	(²)						
Virginia ⁷	13	555,321	3.3	546,928	2.3	664,558	2.0	329,155	2.1	221,270	3.3
Washington	39	438	(²)	1,125	(²)	1,472	(²)	612	(²)		
West Virginia	16	460,777	2.7	512,747	2.1	817,168	2.9	780,829	4.9		
Wisconsin	18	160,414	0.9	219,070	0.9	314,150	1.1	74,478	0.5	19,854	0.3
Wyoming				120	(²)						

¹ The first column shows the rank of the state or territory when arranged according to the production of sorghum sirup.
² Less than one-tenth of 1 per cent.
³ No report prior to 1900.

⁴ Dakota territory prior to 1890.
⁵ Included in Indian Territory prior to 1890.
⁶ Included in Dakota territory prior to 1890.
⁷ In 1860 and 1869 Virginia included West Virginia.

STATISTICS OF AGRICULTURE.

TABLE 12.—ACREAGE, QUANTITY SOLD, AND RECEIPTS FROM SALES OF BEETS GROWN FOR SUGAR MAKING, AND SPECIFIED DATA AS TO THE MANUFACTURE OF BEET SUGAR, BY STATES AND TERRITORIES.

A.—Sugar Beets as Reported by Farmers.

STATES AND TERRITORIES.	Rank. ¹	Total number of farms. ²	SUGAR BEETS GROWN IN 1899.				AVERAGE.			Per cent of total acreage.	Per cent of total tons grown.
			Farms reporting.	Acres.	Tons ³ sold.	Received from sales.	Acres per farm.	Tons per acre.	Receipts from sales.		
The United States		1,692,464	14,035	110,170	793,353	\$3,323,240	7.8	7.2	\$30.16	100.0	100.0
California.....	1	72,542	868	41,242	356,535	1,550,346	47.8	8.6	37.59	37.4	44.9
Colorado.....	9	24,700	169	1,094	6,656	26,711	6.5	6.1	24.42	1.0	0.8
Illinois.....	8	264,151	78	1,370	9,109	36,223	17.6	6.6	26.44	1.2	1.2
Michigan.....	2	203,261	9,085	40,247	215,373	877,481	4.4	5.4	21.80	36.5	27.2
Minnesota.....	7	154,659	624	2,114	15,959	59,826	3.4	7.5	28.30	1.9	2.0
Nebraska.....	4	121,525	595	8,662	62,470	222,258	16.2	7.2	25.66	7.0	7.9
Nevada.....	14	2,184	1	2	2	10	2.0	1.0	5.00	(*)	(*)
New Mexico.....	11	12,311	33	1,298	3,965	16,849	39.3	3.1	12.98	1.2	0.5
New York.....	5	226,720	774	2,653	16,003	75,487	2.7	7.8	36.77	1.9	2.0
Oregon.....	6	35,837	63	2,510	14,462	63,322	39.8	5.8	25.23	2.3	1.8
Texas.....	12	352,190	20	135	523	2,451	6.8	3.9	18.16	0.1	0.1
Utah.....	3	19,387	1,753	7,546	85,914	365,163	4.3	11.4	48.39	6.9	10.8
Washington.....	10	33,202	29	1,863	6,149	26,176	64.2	3.3	14.05	1.7	0.8
Wisconsin.....	13	169,795	8	34	233	937	4.2	6.9	27.56	(*)	(*)

B.—Acreage, Quantity, and Cost of Sugar Beets as Reported by Factories.

STATES AND TERRITORIES.	TOTAL.			BEETS GROWN BY—									AVERAGE QUALITY OF BEETS.	
	Acres.	Tons. ³	Cost.	Factory proprietors.			Tenants of factory proprietors.			Contract by others.			Per cent of sucrose.	Coefficient of purity.
				Acres.	Tons. ³	Cost.	Acres.	Tons. ³	Cost.	Acres.	Tons. ³	Cost.		
The United States	185,305	794,658	\$3,485,320	10,239	23,241	\$93,898	13,074	95,071	\$430,479	111,992	676,346	\$2,960,943	14.5	81.2
California.....	63,878	351,942	1,585,953	7,526	10,645	42,718	12,762	93,294	422,704	43,590	251,003	1,120,531	15.9	81.2
Michigan.....	37,034	205,925	902,592	28	218	511				37,006	205,707	902,081	13.3	82.9
Other states and territories..	34,393	233,791	996,775	2,685	12,378	50,669	312	1,777	7,775	31,896	219,636	938,331	13.6	79.7

C.—Materials Used in the Manufacture of Beet Sugar.

STATES AND TERRITORIES.	Tons ³ of sugar beets.	SUBSTANCES USED IN REFINING, PACKING, AND FOR FUEL.							
		Tons ³ of limestone.	Tons ³ of coke.	Tons ³ of sulphur.	Number of barrels.	Number of sacks.	Tons of coal.	Gallons of oil.	Cords of wood.
The United States.....	794,658	64,805	7,519	149	90,985	1,342,649	109,235	7,017,079	3,459
California.....	354,942	32,403	3,274	51	1,301	891,924	8,558	7,004,415	
Michigan.....	205,925	15,403	2,079	40	79,468	76,796	47,979		
Other states and territories.....	233,791	16,999	2,166	58	10,216	373,929	52,698	12,664	3,459

D.—Quantity and Value of Products Made from Sugar Beets.

STATES AND TERRITORIES.	Total value of all products.	SUGAR.						MOLASSES.		VALUE OF OTHER PRODUCTS.			
		Total.		Granulated.		Raw.		Gallons. ⁵	Value.	Beet pulp.	Juice.	Lime.	Fertilizer.
		Pounds.	Value.	Pounds.	Value.	Pounds.	Value.						
The United States.....	\$7,323,657	163,458,075	\$7,222,581	115,686,356	\$5,580,527	47,771,719	\$1,642,054	3,551,856	\$25,102	\$21,822	\$51,000	\$642	\$2,710
California.....	3,499,996	86,741,713	3,490,318	43,839,911	2,049,726	42,901,802	1,440,592	1,708,501		6,968			2,710
Michigan.....	1,602,266	33,708,283	1,600,284	32,737,098	1,561,100	971,185	39,184	321,100	1,225	241		516	
Other states and territories..	2,221,595	43,008,079	2,131,979	39,109,347	1,969,701	3,898,732	162,278	1,522,255	23,877	14,613	51,000	125	

¹This column shows the rank of the state or territory when arranged according to the receipts from sales in 1899.
²For states reporting sugar beets.

³Two thousand pounds.

⁴Less than one-tenth of 1 per cent.

⁵Includes quantities for which no value could be given, also wastage.

GENERAL TABLES.

TABLE 13.—QUANTITY AND VALUE OF MAPLE SUGAR MADE ON FARMS IN 1899, AND QUANTITY REPORTED IN CENSUS YEARS 1850 TO 1890, BY STATES AND TERRITORIES.

STATES AND TERRITORIES.	CENSUS 1900.						POUNDS OF SUGAR REPORTED, CENSUSES OF—				
	Total number of farms.	Farms reporting.	Pounds.	Value.	Average pounds per farm reporting.	Average value per farm.	1800	1880	1870	1860	1850
The United States ¹	5, 739, 657	62, 714	11, 928, 770	\$1, 074, 260	190	\$17. 13	32, 952, 927	36, 576, 061	28, 443, 645	40, 120, 205	34, 259, 430
North Atlantic division....	677, 509	39, 863	10, 478, 240	954, 055	263	23. 93	29, 037, 260	28, 631, 366	19, 508, 253	27, 097, 081	21, 274, 317
South Atlantic division....	962, 225	1, 950	426, 200	34, 767	219	17. 83	368, 712	576, 738	827, 422	1, 033, 425	1, 303, 587
North Central division....	2, 196, 567	20, 744	1, 020, 830	84, 980	49	4. 10	3, 526, 194	7, 270, 126	7, 702, 295	11, 489, 734	11, 069, 342
South Central division....	1, 658, 166	157	3, 500	458	22	2. 92	20, 761	97, 831	405, 694	499, 965	600, 190
Western division.....	242, 908							11			
Alabama.....	223, 220									228	643
Alaska.....	12										
Arizona.....	5, 809										
Arkansas.....	178, 694						335		1, 185	3, 077	9, 330
California.....	72, 542										
Colorado.....	24, 700										
Connecticut.....	26, 948	59	4, 930	760	84	12. 71	8, 617	44, 092	14, 266	44, 259	50, 796
Delaware.....	9, 687										
District of Columbia.....	269										
Florida.....	40, 814										
Georgia.....	224, 691									991	50
Hawaii.....	2, 273										
Idaho.....	17, 471										
Illinois.....	264, 151	248	4, 090	478	16	1. 93	13, 260	80, 193	136, 873	134, 195	248, 904
Indiana.....	221, 897	4, 467	51, 900	4, 372	12	0. 98	67, 329	235, 117	1, 332, 332	1, 541, 761	2, 921, 192
Indian Territory.....	46, 505										
Iowa.....	228, 622	83	2, 320	280	28	3. 37	45, 120	50, 710	146, 490	315, 436	78, 407
Kansas.....	173, 098								933	3, 742	
Kentucky.....	234, 667	93	2, 340	291	25	3. 13	11, 259	66, 535	269, 416	380, 941	437, 405
Louisiana.....	115, 969										255
Maine.....	59, 299	641	5, 500	643	9	1. 00	84, 537	153, 334	169, 805	306, 742	93, 542
Maryland.....	46, 012	209	264, 160	20, 561	1, 264	93. 38	156, 284	176, 076	70, 464	63, 261	47, 740
Massachusetts.....	37, 715	1, 000	192, 990	21, 124	193	21. 12	558, 674	878, 799	399, 800	1, 000, 078	795, 525
Michigan.....	203, 261	3, 168	302, 715	26, 693	96	8. 43	1, 641, 402	3, 423, 149	1, 781, 855	4, 051, 322	2, 499, 794
Minnesota.....	154, 659	147	29, 580	2, 733	201	13. 59	34, 917	76, 072	210, 407	370, 669	2, 950
Mississippi.....	220, 803								125	99	
Missouri.....	284, 836	296	12, 055	1, 288	41	4. 35	20, 132	58, 964	116, 980	142, 028	178, 910
Montana.....	13, 370										
Nebraska.....	121, 525						12	402	10	122	
Nevada.....	2, 184										
New Hampshire.....	29, 324	1, 631	441, 870	44, 312	271	27. 17	2, 124, 515	2, 731, 945	1, 800, 704	2, 255, 012	1, 298, 863
New Jersey.....	34, 650						210	2, 496	419	3, 455	2, 197
New Mexico.....	12, 311										
New York.....	226, 720	20, 567	3, 623, 540	367, 184	176	14. 94	10, 485, 623	10, 693, 619	6, 692, 040	10, 816, 419	10, 357, 434
North Carolina.....	224, 637	21	1, 130	117	56	5. 57	7, 713	4, 103	21, 257	30, 845	27, 932
North Dakota.....	45, 332										
Ohio.....	276, 719	12, 067	618, 990	48, 736	51	4. 04	1, 575, 562	2, 895, 732	3, 469, 128	3, 345, 568	4, 538, 209
Oklahoma.....	62, 495										
Oregon.....	35, 837								11		
Pennsylvania.....	224, 248	6, 154	1, 429, 540	115, 910	232	13. 83	1, 651, 163	2, 866, 010	1, 545, 917	2, 767, 335	2, 326, 525
Rhode Island.....	5, 498										28
South Carolina.....	155, 355								2	205	200
South Dakota.....	52, 622										
Tennessee.....	224, 623	64	1, 160	167	18	2. 61	9, 167	31, 296	134, 968	115, 620	158, 557
Texas.....	352, 190										
Utah.....	19, 387										
Vermont.....	33, 104	9, 811	4, 779, 870	464, 132	437	47. 31	14, 123, 921	11, 261, 077	8, 894, 302	9, 897, 781	6, 349, 357
Virginia ²	167, 886	213	19, 310	1, 316	91	8. 53	26, 991	85, 693	245, 093	933, 103	1, 227, 665
Washington.....	33, 202										
West Virginia.....	92, 374	1, 507	141, 550	12, 273	94	8. 14	177, 724	310, 866	490, 606		
Wisconsin.....	169, 795	263	4, 130	400	16	1. 49	123, 410	448, 337	507, 192	1, 584, 451	610, 976
Wyoming.....	6, 095										

¹ Data for Alaska and Hawaii included in totals for United States, but not in those for the five geographic divisions.

² In 1860 and 1850 Virginia included West Virginia.

STATISTICS OF AGRICULTURE.

TABLE 14.—QUANTITY AND VALUE OF MAPLE SIRUP MADE ON FARMS IN 1899, AND QUANTITY REPORTED IN THE CENSUS YEARS 1860 TO 1890, BY STATES AND TERRITORIES.

STATES AND TERRITORIES.	CENSUS 1900.						GALLONS OF SIRUP REPORTED, CENSUSES OF—			
	Total number of farms.	Farms report- ing.	Gallons.	Value.	Average gallons per farm report- ing.	Average value per farm.	1890	1880	1870	1860
The United States ¹	5,789,657	62,718	2,056,611	\$1,562,451	32.8	\$24.91	2,258,376	1,796,048	921,057	1,597,589
North Atlantic division.....	677,506	39,868	820,108	664,369	20.6	16.67	1,019,578	712,390	145,809	364,590
South Atlantic division.....	962,225	1,950	22,505	18,271	11.5	9.37	24,663	38,839	32,401	119,788
North Central division.....	2,196,567	20,746	1,211,334	877,079	58.4	42.28	1,202,481	1,013,601	684,291	898,593
South Central division.....	1,658,166	157	2,538	2,619	16.2	16.68	11,654	31,218	59,026	214,672
Western division.....	242,908	2	126	113	63.0	56.50			30	46
Alabama.....	223,220								3	
Alaska.....	12									
Arizona.....	5,809									
Arkansas.....	178,694								75	124
California.....	72,542									6
Colorado.....	24,700									
Connecticut.....	26,948	59	948	986	16.1	16.71	1,437	2,173	168	2,277
Delaware.....	9,687									
District of Columbia.....	269									
Florida.....	40,814									
Georgia.....	224,691									20
Hawaii.....	2,273									
Idaho.....	17,471									
Illinois.....	264,151	248	9,357	9,363	37.7	37.75	13,978	40,077	10,378	20,048
Indiana.....	221,897	4,467	179,576	161,935	40.2	36.25	180,702	242,084	227,880	292,908
Indian Territory.....	45,505									
Iowa.....	228,622	88	2,602	2,640	32.1	31.81	14,413	17,766	9,315	11,405
Kansas.....	178,098	2	46	60	22.5	30.00			212	2
Kentucky.....	234,667	98	2,367	2,450	25.5	26.34	10,468	27,630	49,073	140,076
Louisiana.....	115,969									
Maine.....	59,299	641	16,024	15,277	25.0	23.83	71,818	82,006	28,470	32,679
Maryland.....	46,012	209	5,825	3,622	27.9	17.33	1,021	2,043	374	2,404
Massachusetts.....	37,715	1,000	27,174	27,112	27.2	27.11	33,632	13,017	2,326	15,307
Michigan.....	203,261	3,168	82,997	73,903	26.2	23.33	197,775	181,990	23,637	78,998
Minnesota.....	154,659	147	1,079	939	7.3	6.39	12,091	11,407	12,722	23,038
Mississippi.....	220,803									
Missouri.....	284,886	296	5,474	5,271	18.5	17.81	8,333	16,224	16,317	18,289
Montana.....	13,370									
Nebraska.....	121,625						30	202		275
Nevada.....	2,184									
New Hampshire.....	29,324	1,631	41,588	38,314	25.5	23.49	81,997	79,712	16,884	43,833
New Jersey.....	34,650						134	334	5	8,088
New Mexico.....	12,311									
New York.....	226,729	20,667	413,159	323,996	20.1	16.75	457,658	266,390	46,048	131,843
North Carolina.....	224,637	21	129	117	6.1	5.57	1,142	582	418	17,769
North Dakota.....	45,332									
Ohio.....	276,719	12,067	923,519	616,490	76.5	51.09	727,142	495,839	362,612	370,612
Oklahoma.....	62,495									
Oregon.....	35,837								30	
Pennsylvania.....	224,248	6,154	160,297	123,863	26.0	20.13	154,650	140,667	39,385	114,310
Rhode Island.....	5,498									
South Carolina.....	155,355									
South Dakota.....	52,622						2			
Tennessee.....	224,623	64	171	169	2.7	2.64	1,186	3,688	4,843	74,372
Texas.....	352,190								5,032	
Utah.....	19,387									40
Vermont.....	33,194	9,811	160,918	134,821	16.4	13.74	218,252	128,091	12,023	16,253
Virginia ²	167,886	213	1,077	1,634	7.9	7.20	3,468	7,518	11,400	99,605
Washington.....	33,202	2	126	113	63.0	56.50				
West Virginia.....	92,874	1,507	14,874	12,998	9.9	8.63	19,032	28,696	20,209	
Wisconsin.....	169,795	268	6,625	6,478	24.7	24.17	48,006	58,012	31,218	88,118
Wyoming.....	6,095									

¹ Data for Alaska and Hawaii included in totals for United States, but not in those for the five geographic divisions.² In 1860 and 1850 Virginia included West Virginia.

GENERAL TABLES.

TABLE 15.—ACREAGE, TONS SOLD, AND PRODUCTS, MADE ON FARMS, OF SUGAR CANE AND SORGHUM CANE, ACREAGE AND TONS SOLD OF BEETS GROWN FOR SUGAR, AND PRODUCTION OF MAPLE SIRUP AND SUGAR, IN 1899, BY COUNTIES.

A.—Sugar Cane.

COUNTIES.	SUGAR CANE AND PRODUCTS.				COUNTIES.	SUGAR CANE AND PRODUCTS.			
	Acres.	Tons sold.	Gallons of sirup.	Pounds of sugar.		Acres.	Tons sold.	Gallons of sirup.	Pounds of sugar.
Alabama.....	32,871	2,761	2,672,438	13,765	Florida—Continued.				
Autauga.....	207	39	30,319		Jackson.....	1,537		131,192	2,500
Baldwin.....	78	4	12,593	300	Jefferson.....	735	11	92,237	3,900
Barbour.....	1,240	10	133,386		Lafayette.....	148	4	23,759	7,500
Bibb.....	239		35,986		Lake.....	134	5	17,192	1,000
Bullock.....	1,264	14	113,786	150	Lee.....	77		19,536	
Butler.....	1,181	320	125,421		Leon.....	758	4	75,517	2,000
Chambers.....	520		83,210		Levy.....	231	54	24,411	4,200
Chilton.....	606	27	44,255		Liberty.....	100		39,453	1,600
Choctaw.....	529	4	38,410		Madison.....	686		101,287	11,400
Clarke.....	933	12	67,159	30	Mamatee.....	44	10	4,063	
Clay.....	71		3,402		Marion.....	667	13	92,526	18,900
Coffee.....	1,180	11	108,557	765	Monroe.....	44	40	5,595	
Conocochee.....	834	32	66,806	1,630	Nassau.....	100		18,655	6,900
Coosa.....	663	8	36,149		Orange.....	146		91,124	1,500
Covington.....	859	51	68,011	150	Osceola.....	59		5,054	1,100
Crenshaw.....	1,187	5	17,236	2,810	Pasco.....	184		27,629	5,600
Dale.....	1,053	59	149,612	4,760	Polk.....	279		36,813	12,300
Dallas.....	632	11	40,465		Putnam.....	141	3	18,968	4,500
Elmore.....	839	67	65,909		St. John.....	175		12,856	15,400
Escambia.....	689	90	40,801	770	Santa Rosa.....	92		12,856	
Fayette.....	159	50	7,637		Sumter.....	159		25,741	500
Geneva.....	998		86,284	600	Suwanee.....	521		68,073	18,000
Greene.....	469	15	26,385		Taylor.....	176		22,522	10,100
Hale.....	1,029	7	44,633		Volusia.....	128		12,218	200
Henry.....	1,498	574	186,977	620	Wakulla.....	202		23,954	3,600
Lamar.....	119	33	5,186		Walton.....	222	28	33,267	1,300
Lee.....	1,038	30	85,255	40	Washington.....	200		33,491	800
Lowndes.....	1,129	363	69,820	180	Georgia.....	26,056	18,868	3,226,367	226,730
Macon.....	1,047	183	71,237	200	Appling.....	336	47	47,100	3,900
Madison.....	684	9	40,424	300	Baker.....	280	53	26,264	
Mobile.....	439	15	21,605		Baldwin.....	61	55	3,818	
Monroe.....	1,071	13	83,744		Berrien.....	509	49	60,000	39,120
Montgomery.....	718	8	64,075		Bibb.....	88	145	8,117	20
Perry.....	771		51,357		Brooks.....	995	82	175,926	8,100
Pickens.....	510		34,736		Bryan.....	131	643	1,470	2,310
Pike.....	1,100	98	122,983	150	Bulloch.....	947	199	123,269	27,190
Randolph.....	359	5	21,616	20	Burke.....	331	330	33,644	1,100
Russell.....	886	240	68,416		Butts.....	35	1	5,014	
Shelby.....	129	2	6,435		Calhoun.....	254		23,924	
Sumter.....	103	103	26,462		Camden.....	144	27	24,708	950
Tallahassee.....	153	3	8,062		Campbell.....	10	24	310	150
Tallahoochee.....	1,085	49	85,040		Carroll.....	26		2,310	500
Talapoosa.....	669	24	31,245		Charlton.....	48		8,121	3,150
Tuscaloosa.....	538	3	33,472		Chatam.....	87	147	12,653	620
Washington.....	1,064	66	85,299	300	Chattahoochee.....	86		6,193	
Wilcox.....					Clay.....	162	41	17,260	
Arizona.....	50	100	438		Clayton.....	32	13	2,726	
Maricopa.....	1	8			Clinch.....	311	18	50,691	11,810
Mohave.....	3		300		Coffee.....	196	1,349	1,465	
Phoa.....	7	35			Colquitt.....	475		41,252	4,500
Yavapai.....	39	57	138		Columbia.....	56	16	4,476	
Arkansas.....	460	16	44,810	50	Coweta.....	119	51	11,506	
Ashley.....	5		473		Crawford.....	68	46	6,334	800
Bradley.....	8		742	50	Deatur.....	1,917	494	310,983	4,260
Calhoun.....	10		982		Dekalb.....	15	4	764	1,510
Chicot.....	43		3,867		Dodge.....	222	136	23,542	200
Clark.....	1		44		Dooley.....	505	304	55,807	300
Cleveland.....	2		179		Dougherty.....	126	472	7,302	
Columbia.....	98	3	7,719		Douglas.....	62		5,414	
Dallas.....	5		372		Early.....	224	40	28,900	140
Drew.....	20		3,088		Rehols.....	161		17,038	2,050
Hempstead.....	8		748		Ellingham.....	522	748	43,825	13,050
Howard.....	2		186		Emanuel.....	706	147	92,500	6,320
Lafayette.....	58	10	6,956		Fayette.....	6	90	222	80
Lincoln.....	11		1,127		Glascocok.....	35		4,360	
Little River.....	48	3	4,447		Glynn.....	61	142	4,485	2,400
Miller.....	21		1,964		Greene.....	19	33	1,779	
Nevada.....	7		548		Gwinnett.....	12		918	500
Onachita.....	17		1,483		Hancock.....	76	49	6,067	
Union.....	90		9,894		Harris.....	484	9	66,867	500
Florida.....	13,800	1,157	1,687,452	284,300	Heard.....	50	10	6,036	
Alachua.....	891	4	112,945	24,600	Henry.....	26	52	1,663	
Baker.....	59		7,916	200	Houston.....	311	1,398	20,718	
Bradford.....	460	24	63,533	23,100	Irwin.....	269	9	47,100	3,380
Brevard.....	4		309		Jasper.....	33	1	4,846	100
Calhoun.....	229		35,123	900	Jefferson.....	389	358	34,246	60
Citrus.....	113		18,805	100	Johnson.....	292	64	36,716	900
Clay.....	197	10	21,262	20,300	Jones.....	85	28	9,000	
Columbia.....	423		55,425	20,600	Laurens.....	371	1,806	15,703	1,650
Dade.....	2		220		Lee.....	145	144	15,001	
De Soto.....	206	3	18,715	15,500	Liberty.....	430	164	42,716	2,580
Duval.....	345	512	31,865	25,300	Lincoln.....	4		411	500
Escambia.....	123	59	16,628	2,200	Lowndes.....	389	46	68,283	
Franklin.....	37	54	4,251		McDuffie.....	165	30	9,317	23,210
Gadsden.....	1,176	5	166,956	2,700	McIntosh.....	159	90	20,550	
Hamilton.....	630	18	35,079	7,400	Macon.....	266	49	34,710	140
Hernando.....	172		14,466	300	Marion.....	360	1	44,109	1,300
Hillsboro.....	508	206	44,968	4,200	Meriwether.....	411		40,835	800
Holmes.....	238		40,083	1,800	Miller.....	197	1	22,347	100
					Mitchell.....	543		76,571	2,120
					Monroe.....	236	625	25,866	120
					Montgomery.....	566	63	74,133	5,150
					Morgan.....	41		5,070	
					Muscogee.....	205	234	16,604	1,110

STATISTICS OF AGRICULTURE.

TABLE 15.—ACREAGE, TONS SOLD, AND PRODUCTS, MADE ON FARMS, OF SUGAR CANE AND SORGHUM CANE, ACREAGE AND TONS SOLD OF BEETS GROWN FOR SUGAR, AND PRODUCTION OF MAPLE SIRUP AND SUGAR, IN 1899, BY COUNTIES—Continued.

A.—Sugar Cane—Continued.

COUNTIES.	SUGAR CANE AND PRODUCTS.				COUNTIES.	SUGAR CANE AND PRODUCTS.			
	Acres.	Tons sold.	Gallons of sirup.	Pounds of sugar.		Acres.	Tons sold.	Gallons of sirup.	Pounds of sugar.
Georgia—Continued.					Louisiana—Continued.				
Newton	33		3,625		Tangipahoa	114		17,340	
Oglethorpe	10		1,260		Terrebonne	27,177	94,286	16,582	24,669,500
Panhandle	32		4,571		Union	98		11,282	
Pierce	36	384	5,386		Vermilion	3,230	20,423	8,598	296,200
Pike	335	1,463	13,354	250	Vernon	17		2,296	
Pulaski	210	104	22,056	170	Washington	210		24,103	
Putnam	48	16	6,086		Webster	150		16,703	
Quitman	7	26	150		West Baton Rouge	8,500	14,078	136,758	3,777,000
Randolph	237	122	31,050	150	West Feliciana	26	80	2,200	300
Richmond	59	59	3,886		Winn	56		7,070	
Rockdale	38		3,780						
Schley	136	49	13,896		Mississippi				
Scriven	539	64	88,186	5,100	Adams	3		375	150
Spalding	53	25	6,631		Alcorn	1		60	
Stewart	315	470	38,577		Amitie	249	171	35,413	860
Sumter	393	133	44,478		Attala	571	189	62,190	500
Talbot	347	205	34,994	1,200	Bolivar	7	32		
Tattnall	539	558	58,900	20,750	Calhoun	6		685	
Taylor	171	428	17,513	1,240	Carroll	145		17,976	
Telfair	290	84	28,638	1,650	Chickasaw	27		3,374	90
Terrell	418	1,062	83,769	80	Choctaw	116	7	16,744	
Thomas	2,058	376	861,463	7,380	Claborn	155	980	3,709	
Troup	288	100	25,710		Clarke	337	28	48,883	2,100
Twiggs	42	50	2,900		Clay	73		6,542	
Upson	186	14	32,052		Copiah	434	232	61,395	520
Ware	220	197	36,871	1,100	Covington	293	55	29,652	
Warren	41	25	2,864	250	Franklin	148	20	22,423	
Washington	688	12	84,203	140	Greene	38	6	4,645	
Wayne	211	26	30,671	7,660	Grenada	8		1,195	590
Webster	70	41	7,232		Hancock	21	19	2,587	240
Wilcox	163	21	17,364		Harrison	100	18	9,824	
Wilkes	43	21	2,925		Ibids	108	77	17,843	200
Wilkinson	265	107	36,455	1,300	Holmes	256	12	30,311	1,010
Worth	569	810	67,117		Itawamba	3	3	241	
Hawaii					Jackson	33	70	10,132	
Hawaii ¹	35,096	97,750		199,226,000	Jasper	544	9	64,998	400
Kauai ¹	12,947	46,602		110,380,000	Jefferson	51	51	5,076	
Lanai ¹	200	4,000			Jones	252	774	22,822	
Mau ¹	10,534	1,200		108,712,000	Kemper	466	246	58,696	1,830
Oahu ¹	6,910	22,932		86,248,000	Lafayette	7	24	385	
Indian Territory					Lauderdale	686	126	89,359	2,900
Cherokee ²	4	18			Lawrence	502	6	78,412	1,390
Chickasaw ²	11	41			Lenke	537	7	69,214	1,200
Choctaw ²	20	170			Leo	2	3		1,200
Louisiana					Leflore	4	4	239	
Acadia	248	1,094	14,694	100	Lincoln	393	705	40,181	50
Ascension	11,451	44,321	5,675	5,356,300	Lowndes	6	26	277	
Assumption	28,023	107,599	177,665	11,819,499	Madison	148	14	22,638	950
Avoynes	688	2,727	20,564	321,300	Marion	458	75	37,125	
Bienville	71		8,188		Monroe	16	6	1,823	
Bossier	42		4,591		Montgomery	77	20	7,716	
Caddo	33		3,225		Neshoba	451	50	54,577	470
Calcasieu	207	639	12,887	2,200	Newton	754	120	109,391	
Caldwell	28		3,901		Noxubee	68	207	5,743	
Cameron	31		4,371		Oktibbeha	87		10,991	
Catahoula	25		3,179	200	Panola	12	11	1,000	
Claborn	190		26,676		Pearl River	51	80	4,613	
De Soto	30		3,739		Perry	201		20,385	
East Baton Rouge	4,421	27,065	15,755	800,000	Pike	602	597	91,555	
East Feliciana	110	219	11,010		Pontotoc	8	8	951	140
Franklin	5		421		Rankin	337	4	46,408	
Grant	9	12	934		Scott	362	14	50,189	450
Iberia	19,449	90,654	67,932	6,214,800	Sharkey	23	75	822	
Iberville	17,453	47,189	49,473	8,806,200	Simpson	181	63	25,908	
Jackson	63		7,078		Smith	268	347	24,889	630
Jefferson	3,613	11,927	150	3,257,600	Sunflower	4	16	71	1,500
Lafayette	8,104	52,445	26,140	522,000	Tallahatchie	22	6	1,827	
Lafourche	28,674	121,342		19,069,200	Tate	2	2	85	
Lincoln	147		19,566		Warren	9	9	1,433	200
Livingston	34	64	4,135		Wayne	209	208	24,051	100
Natchitoches	30		4,811		Webster	12		1,514	
Orleans	1,610	754	35,000	2,288,200	Wilkinson	75	35	7,016	850
Ouachita	86		11,595		Winston	222	76	24,566	
Plaquemines	8,605	61,880		4,863,300	Yazoo	151	34	19,394	
Pointe Coupee	1,787	2,020	87,225	24,400					
Rapides	1,729	18,431	25,330	503,800	New Mexico				
Red River	6		890		Chaves	4	188		
Richland	12		1,571		Socorro	1	3		
Sabine	100		14,841		North Carolina				
St. Bernard	1,998	10,246		1,242,000	Columbus	25	11	1,957	
St. Charles	9,711	22,324		9,803,100	South Carolina				
St. Helena	89	62	10,889		Abbeville	8	15	578	
St. James	22,280	74,149	24,795	10,951,100	Aiken	183	39	18,146	
St. John the Baptist	14,763	62,597	62,597	6,596,500	Anderson	1		31	540
St. Landry	1,531	3,861	58,294	362,300	Bamberg	496	679	45,485	13,910
St. Martin	5,546	29,525	11,415	1,266,000	Barnwell	912	25	108,779	2,870
St. Mary	44,137	121,978	469,168	33,257,900	Beaufort	134	389	14,210	1,000
St. Tammany	216		30,335	1,200					

¹ Island.

² Indian nation.

STATISTICS OF AGRICULTURE.

TABLE 15.—ACREAGE, TONS SOLD, AND PRODUCTS, MADE ON FARMS, OF SUGAR CANE AND SORGHUM CANE, ACREAGE AND TONS SOLD OF BEETS GROWN FOR SUGAR, AND PRODUCTION OF MAPLE SIRUP AND SUGAR, IN 1899, BY COUNTIES—Continued.

B.—Sorghum Cane.

SORGHUM CANE AND PRODUCTS.			SORGHUM CANE AND PRODUCTS.			SORGHUM CANE AND PRODUCTS.					
COUNTIES.	Acres.	Tons sold.	Gallons of sirup.	COUNTIES.	Acres.	Tons sold.	Gallons of sirup.	COUNTIES.	Acres.	Tons sold.	Gallons of sirup.
Alabama	14,831	3,145	1,108,808	Arkansas—Continued.				Georgia	11,553	5,576	767,024
Autauga	91		6,400	Crawford	358	12	24,520	Baldwin	8	9	834
Barbour	40	35	2,454	Crittenden	25		1,802	Banks	172	12	12,211
Bibb	86		6,079	Cross	144		7,206	Bartow	221	50	14,994
Blount	606	84	48,384	Dallas	142		10,634	Burke	8	32	
Bullock	22	8	1,540	Desha	56		3,382	Butts	92	56	3,206
Butler	17	5	1,114	Drew	269	8	21,090	Campbell	189	107	10,494
Calhoun	443	4	35,247	Faulkner	422	2	34,291	Carroll	401	103	36,452
Chambers	272		17,175	Franklin	204	9	22,098	Catoosa	126		10,368
Cherokee	453	3	35,443	Fulton	420	10	29,359	Chattooga	172	147	10,570
Chilton	75	3	5,091	Garland	79		3,496	Cherokee	175	13	13,060
Choctaw	99	6	7,342	Grant	166	16	8,663	Clarke	98	10	2,156
Clarke	242		13,213	Greene	222	14	22,116	Clayton	111	19	8,338
Clay	489		39,541	Hempstead	225	8	17,614	Cobb	378	21	28,981
Cleburne	331	222	22,170	Hot Spring	128	6	9,592	Coffee	20	1	
Coffee	32	3	3,982	Howard	181	7	12,679	Columbia	94	6	1,213
Colbert	184	28	12,699	Independence	673		34,403	Coweta	29		6,071
Coosa	326	6	27,825	Izard	438		39,690	Dade	163	6	1,633
Crenshaw	12		1,013	Jackson	81	4	6,012	Dawson	223	19	16,092
Cullman	354	9	29,802	Jefferson	120	15	8,908	DeKalb	4	11	
Dallas	108		8,495	Johnson	348		24,349	Dooly	6	49	
DeKalb	487	2	40,074	Lawrence	292		17,636	Dougherty	19		16,710
Elmore	151	22	12,253	Lee	55		6,168	Douglas	135	46	8,952
Escambia	7	2	510	Lincoln	420	11	25,118	Elbert	181	156	7,498
Etowah	93	10	7,835	Logan	363	3	25,142	Fannin	60	217	7,443
Fayette	433	26	33,910	Lonoke	349		29,970	Fayette	313	50	27,013
Franklin	147	13	12,219	Madison	440	15	33,709	Forsyth	251	2	29,167
Geneva	4		288	Marion	215		19,960	Franklin	332	47	22,708
Greene	419		32,743	Miller	150		9,287	Fulton	170	59	10,867
Hale	155		9,285	Mississippi	2		275	Gilmer	313	149	23,142
Henry	9	5	760	Monroe	75	9	4,727	Glasseock	10		703
Jackson	303	12	25,826	Montgomery	168	15	9,236	Gordon	218	84	15,616
Jefferson	385	70	30,846	Nevada	258	11	19,141	Greene	62	8	2,897
Lamar	499	369	35,903	Newton	237		14,253	Gwinnett	362	16	27,999
Landerdale	360	207	27,656	Ouachita	221		18,873	Habersham	138	13	10,180
Lawrence	391	108	26,847	Perry	57		2,639	Hall	141	17	11,673
Lee	136	7	11,207	Phillips	56	6	3,776	Hancock	126	42	8,494
Limestone	298	57	25,561	Pike	116	1	7,006	Haralson	234	38	18,542
Lowndes	82	33	7,602	Poinsett	53	12	2,797	Harris	91	55	5,768
Macon	70	65	3,163	Polk	250	19	15,600	Hart	225	180	13,729
Madison	598	229	43,396	Pope	467		33,312	Heard	387	4	27,623
Marengo	146		10,187	Prairie	115	12	6,240	Henry	80	283	3,517
Marion	392	4	34,951	Pulaski	177	13	11,883	Houston	24	112	68
Marshall	363	7	31,076	Randolph	350	1	30,724	Jackson	251	202	12,727
Mobile	9		620	St. Francis	256	6	15,289	Jasper	98	30	7,454
Monroe	59	7	4,308	Saline	180		10,950	Jefferson	24	46	603
Montgomery	50	4	2,552	Scott	91	6	4,985	Jones	24	31	1,239
Morgan	263	40	24,784	Searey	298	7	17,854	Laurens	8	2	99
Perry	76	60	4,976	Sebastian	347		19,634	Liberty	7	4	486
Pickens	393	65	31,747	Sevier	322	13	19,314	Lincoln	149		8,623
Pike	41	7	2,891	Sharp	343	13	27,305	Lumpkin	99	76	6,046
Randolph	502		40,584	Stone	119	5	6,657	McDuffie	43	3	2,148
Russell	117	88	4,645	Union	264		20,735	Macon	24	33	70
St. Clair	365		53,201	Van Buren	277	4	22,642	Madison	24	33	869
Shelby	288	46	24,688	Washington	598	23	47,008	Marion	9	13	212
Sumter	342	330	21,059	White	315	4	22,032	Meriwether	148		11,961
Talladega	668	20	54,467	Woodruff	60		2,987	Milton	148		11,766
Tallapoosa	279	54	23,657	Yell	250	15	22,207	Mitchell	9	3	175
Tuscaloosa	273	28	20,825	California	140	6	8,671	Monroe	97	40	5,942
Walker	397	609	27,252	Butte	1		45	Montgomery	8		703
Washington	3		295	Colusa	15		1,320	Morgan	62	8	4,984
Wilcox	171	72	12,977	Kings	26		1,580	Murray	127	12	10,455
Winston	316	51	24,283	Merced	4		290	Muscogee	27	30	1,290
Arizona	133	41	9,031	Modoc	3		103	Newton	187	50	13,401
Apache	23	18	1,120	Orange	29	6	1,954	Oconee	33	34	3,739
Cochise	1		40	San Bernardino	7		350	Oglethorpe	204	382	7,243
Gila	6	8	300	San Diego	1		40	Paulding	351	363	22,034
Gralum	11	5	600	San Joaquin	1		15	Pickens	112	152	6,435
Maricopa	27	7	2,320	San Luis Obispo	1		15	Pike	95	245	2,687
Mohave	7		465	Shasta	5		150	Polk	186	71	12,953
Navajo	21		1,486	Tulare	33		1,964	Pulaski	9	16	40
Yavapai	30	3	2,100	Ventura	8		480	Putnam	58	8	4,042
Yuma	7		600	Yuba	6		380	Rabun	87		6,543
Arkansas	17,684	373	1,223,691	Colorado	51	20	2,661	Richmond	0	2	385
Arkansas	243	4	18,470	Arapahoe	25	5	1,428	Rockdale	98	2	1,916
Ashley	218	4	13,398	Boulder	1	6	98	Spalding	24	10	7,672
Baxter	275	8	16,350	Delta	1		50	Seward	11	7	460
Benton	845	6	60,720	Garfield	1		63	Sumter	3	3	150
Boone	357	1	23,834	Logan	11		520	Talbot	46	14	1,745
Bradley	176		10,603	Mesa	5	6	292	Taliaferro	56	25	9,301
Calhoun	98	3	4,887	Morgan	1		30	Taylor	93	200	2,707
Carroll	419	6	28,306	Phillips	4	3	100	Towns	134	68	8,902
Clark	173		11,963	Prowers	1		80	Tromp	5	8	56
Clay	224	13	13,301	Delaware	150		8,952	Twiggs	208	6	15,753
Cleburne	238		16,647	Kent	20		1,188	Union	38	28	2,211
Cleveland	225		13,535	Sussex	130		7,764	Upson	206	54	15,430
Columbia	339		22,824					Warren	193	448	8,152
Conway	374	6	27,973					Washington	69	20	3,114
Craighead	138		6,905					Wayne	1	2	
								Webster	1	1	
								White	229	166	15,373

GENERAL TABLES.

TABLE 15.—ACREAGE, TONS SOLD, AND PRODUCTS, MADE ON FARMS, OF SUGAR CANE AND SORGHUM CANE, ACREAGE AND TONS SOLD OF BEETS GROWN FOR SUGAR, AND PRODUCTION OF MAPLE SIRUP AND SUGAR, IN 1899, BY COUNTIES—Continued.

B.—Sorghum Cane—Continued.

COUNTIES.	SORGHUM CANE AND PRODUCTS.			COUNTIES.	SORGHUM CANE AND PRODUCTS.			COUNTIES.	SORGHUM CANE AND PRODUCTS.		
	Acres.	Tons sold.	Gallons of sirup.		Acres.	Tons sold.	Gallons of sirup.		Acres.	Tons sold.	Gallons of sirup.
Georgia—Continued.			Illinois—Continued.			Indiana—Continued.			Indiana—Continued.		
Whitfield	205	95	13,836	Sangamon	21	21	1,582	Shelby	54	3	3,410
Wilcox	1	1	.....	Schuyler	119	50	7,991	Spencer	153	87	13,007
Wilkes	224	16	17,228	Scott	12	8	861	Stark	7	8	280
Wilkinson	7	7	290	Shelby	93	6	8,387	Steuben	25	.....	1,480
Idaho	21	8	1,393	Stark	51	8	3,496	Sullivan	95	16	6,511
Utah	1	.....	55	Stephenson	38	43	2,855	Switzerland	51	1	4,351
Nez Perce	20	8	1,338	Tazewell	71	403	1,978	Tippecanoe	25	12	1,246
Illinois	9,158	5,165	625,939	Union	141	63	11,339	Tipton	64	.....	4,569
Adams	158	143	8,956	Vermillion	99	114	7,340	Union	2	.....	154
Alexander	90	.....	6,943	Wabash	80	16	6,440	Vanderburg	97	3	6,729
Bond	58	5	4,424	Warren	11	.....	897	Vermillion	86	.....	3,076
Boone	3	.....	169	Washington	146	129	8,501	Vigo	25	.....	2,019
Brown	50	14	3,862	Wayne	284	2	21,046	Wabash	74	2	5,009
Bureau	13	70	350	White	132	8	11,938	Warren	24	7	1,494
Calhoun	64	11	5,027	Whiteside	33	60	1,552	Warrick	246	19	21,044
Carroll	20	4	1,984	Will	24	.....	1,709	Washington	192	3	13,100
Cass	45	39	2,755	Williamson	335	10	23,555	Wayne	27	2	1,854
Champaign	85	92	5,052	Winnebago	17	23	1,160	Wells	57	.....	4,101
Christian	24	8	1,679	Woodford	24	55	1,135	White	41	2	2,908
Clark	155	47	11,230	Indiana	7,955	2,569	579,061	Whitley	64	.....	4,030
Clay	126	83	6,588	Adams	60	.....	5,314	Indian Territory	6,689	14,932	97,381
Clinton	91	53	7,139	Allen	110	53	6,133	Cherokee ¹	2,432	4,842	42,441
Coles	44	44	3,260	Bartholomew	36	.....	2,632	Chickasaw ¹	2,424	6,007	26,751
Cook	9	5	705	Benton	69	.....	4,698	Choctaw ¹	514	737	20,112
Crawford	122	23	8,298	Blackford	61	.....	1,883	Creek ¹	1,288	3,296	6,637
Cumberland	132	155	6,732	Boone	60	.....	4,608	Modoc, Shawnee, and Ot-tawa ²	10	8	704
Dekalb	5	.....	446	Brown	119	.....	8,306	Quapaw and Peoria ²	10	25	266
Dewitt	20	.....	1,499	Carroll	67	.....	5,665	Seminole ¹	8	17	205
Douglas	14	.....	968	Cass	90	48	4,521	Seneca and Wyandotte ²	3	.....	235
Dupage	7	4	260	Clark	56	5	4,520	Iowa	8,287	10,033	521,212
Edgar	38	92	1,916	Clay	26	3	2,278	Adair	62	36	3,864
Edward	104	1	8,542	Clinton	77	.....	6,384	Adams	148	34	9,669
Effingham	141	28	11,845	Crawford	388	.....	20,399	Allamakee	110	48	8,268
Fayette	356	5	20,823	Davies	291	97	19,809	Appanoose	102	26	7,533
Ford	22	.....	1,576	Dearborn	67	43	5,503	Audubon	56	252	1,148
Franklin	219	3	17,099	Decatur	47	1	4,150	Benton	65	15	5,573
Fulton	177	138	11,604	Dekalb	70	.....	4,890	Blackhawk	514	3,246	3,500
Gallatin	75	.....	5,597	Delaware	52	.....	31,012	Boone	117	22	9,215
Greene	59	.....	4,667	Dubois	448	37	31,012	Bremer	120	337	7,050
Grundy	4	.....	310	Elkhart	15	.....	1,166	Buchanan	106	.....	7,533
Hamilton	302	.....	26,257	Fayette	8	.....	538	Buena Vista	6	3	298
Hancock	63	38	3,872	Floyd	20	4	1,632	Butler	38	15	2,474
Hardin	73	.....	6,146	Fontain	26	70	1,213	Calhoun	98	2	7,749
Henderson	34	8	2,333	Franklin	55	.....	5,588	Carroll	35	6	3,002
Henry	152	626	4,428	Fulton	62	6	4,837	Cass	59	16	4,273
Hoquoin	58	.....	4,030	Gibson	477	37	33,143	Cedar	16	.....	1,352
Jackson	162	401	10,640	Grant	44	20	3,432	Cerro Gordo	14	.....	884
Jasper	188	.....	13,094	Greene	149	12	10,394	Cherokee	9	4	487
Jefferson	189	40	15,367	Hamilton	74	5	5,927	Chickasaw	75	13	5,690
Jersey	77	.....	6,702	Hancock	139	.....	12,938	Clarke	59	.....	4,807
Jo Daviess	48	161	2,138	Harrison	318	74	21,659	Clay	21	.....	1,237
Johnson	159	.....	12,982	Hendricks	63	.....	4,753	Clayton	221	7	17,720
Kankakee	91	.....	6,411	Henry	21	.....	1,770	Clinton	32	18	2,450
Kendall	8	8	226	Howard	89	14	7,162	Crawford	13	17	900
Knox	58	163	1,538	Huntington	63	.....	4,711	Dallas	100	203	6,070
Lake	14	1	1,223	Jackson	118	4	9,501	Davis	241	54	17,928
Lasalle	43	31	2,944	Jasper	70	.....	4,631	Decatur	216	42	18,025
Lawrence	126	3	11,664	Jay	58	.....	4,947	Delaware	185	57	15,310
Lee	6	4	300	Jefferson	62	.....	4,764	Des Moines	69	81	4,820
Livingston	179	71	12,010	Jennings	72	.....	4,633	Dubuque	78	112	5,959
Logan	33	.....	2,345	Johnson	36	.....	2,885	Emmet	1	.....	74
McDonough	167	22	8,286	Knox	146	462	6,651	Fayette	98	.....	7,736
McHenry	15	.....	1,313	Kosciusko	62	18	3,785	Floyd	15	14	864
McLean	64	48	4,759	LeGrange	28	4	1,944	Franklin	9	.....	546
Macon	32	10	2,800	Lake	15	.....	974	Fremont	86	219	2,802
Macoupin	157	324	7,145	Laporte	21	2	1,393	Greene	87	23	5,840
Madison	78	57	6,251	Lawrence	94	23	6,394	Grundy	6	5	390
Marion	124	31	11,829	Madison	62	5	3,885	Guthrie	8	5	5,275
Marshall	18	7	1,261	Marion	29	.....	2,371	Hamilton	63	44	4,624
Mason	85	178	3,615	Marshall	70	14	4,800	Hancock	38	172	440
Massac	59	.....	5,021	Martin	11	48	15,969	Hardin	135	44	8,974
Memard	31	.....	2,632	Miami	89	.....	7,833	Harrison	89	49	7,443
Mercer	115	268	5,409	Monroe	73	10	5,020	Henry	104	.....	7,587
Monroe	80	38	5,587	Montgomery	18	.....	1,376	Howard	20	8	1,674
Montgomery	142	175	8,128	Morgan	139	1,068	2,072	Humboldt	11	10	802
Morgan	86	.....	4,666	Newton	11	10	480	Ia	8	5	356
Moultrie	29	2	2,619	Noble	45	68	2,224	Iowa	61	1	4,937
Ogle	28	.....	1,627	Ohio	1	.....	70	Jackson	107	66	8,103
Peoria	97	.....	6,796	Orange	202	3	14,119	Jasper	115	39	8,413
Perry	157	67	9,116	Owen	43	5	3,664	Jefferson	70	1	5,486
Platt	17	5	1,100	Parke	8	.....	696	Johnson	545	2,825	12,543
Pike	113	70	7,513	Perry	401	1	35,752	Jones	402	188	30,206
Pope	281	14	16,786	Pike	166	7	13,732	Keokuk	127	18	11,152
Pulaski	54	39	3,840	Porter	6	.....	334	Kossuth	11	8	683
Putnam	30	49	988	Posey	89	80	6,821	Lee	194	65	10,100
Randolph	160	11	11,124	Pulaski	44	1	2,834	Linn	98	6	8,304
Richard	205	3	14,441	Putnam	80	.....	5,486	Louis	79	22	5,146
Rock Island	62	55	3,499	Randolph	91	.....	5,849	Lucas	66	.....	5,606
St. Clair	47	18	2,794	Ripley	109	.....	7,778	Lyon	3	10	15
Saline	358	12	22,021	Rush	32	.....	2,138				
				St. Joseph	15	32	922				
				Scott	33	20	2,770				

¹ Indian nation.

² Indian reservation.

STATISTICS OF AGRICULTURE.

TABLE 15.—ACREAGE, TONS SOLD, AND PRODUCTS, MADE ON FARMS, OF SUGAR CANE AND SORGHUM CANE, ACREAGE AND TONS SOLD OF BEETS GROWN FOR SUGAR, AND PRODUCTION OF MAPLE SIRUP AND SUGAR, IN 1899, BY COUNTIES—Continued.

B.—Sorghum Cane—Continued.

COUNTIES.	SORGHUM CANE AND PRODUCTS.			COUNTIES.	SORGHUM CANE AND PRODUCTS.			COUNTIES.	SORGHUM CANE AND PRODUCTS.		
	Acres.	Tons sold.	Gallons of sirup.		Acres.	Tons sold.	Gallons of sirup.		Acres.	Tons sold.	Gallons of sirup.
Iowa—Continued.			KANSAS—Continued.			Kentucky—Continued.					
Madison	139	254	6,952	Morris	380	24,985	Jefferson	26	84	655	
Mahaska	71	24	5,037	Morton	1	70	Jessamine	98	210	4,395	
Marion	261	67	11,622	Nemaha	250	105	14,311	Johnson	207	120	18,236
Marshall	151	32	13,077	Neosho	180	240	6,842	Kenton	14	25	744
Mills	63	129	2,310	Ness	37	133	406	Knott	59	.....	4,620
Mitchell	12	2	1,049	Norton	16	30	405	Knox	248	.....	17,791
Monona	21	.....	1,508	Osage	708	682	29,160	Larue	362	61	22,872
Monroe	91	38	6,786	Osborne	206	350	1,917	Laurel	216	173	14,842
Montgomery	82	79	5,853	Ottawa	23	40	600	Lawrence	617	46	39,736
Muscataine	114	13	5,462	Pawnee	2	.....	105	Lee	155	16	9,912
Osceola	1	.....	54	Phillips	104	86	6,651	Leslie	53	4	3,788
Page	08	4	5,712	Pottawatomie	228	166	11,502	Letcher	87	91	4,829
Palo Alto	2	.....	110	Pratt	63	357	20	Lewis	158	16	9,807
Plymouth	30	25	2,158	Rawlins	117	488	1,598	Lincoln	343	1,195	8,718
Pocahontas	13	1	955	Reno	240	631	1,848	Livingston	171	9	12,533
Pottawattamie	112	52	8,714	Republic	58	10	3,717	Logan	337	692	18,768
Poweshiek	68	67	4,214	Rice	54	158	353	Lyon	65	10	4,551
Ringgold	59	18	4,402	Riley	199	388	9,467	McCraeken	82	9	7,455
Ringgold	114	.....	9,862	Rooks	25	50	.....	McLean	92	10	5,672
Sac	29	38	1,965	Rush	455	2,653	187	Madison	225	462	8,004
Scott	24	.....	1,657	Russell	85	100	.....	Magoffin	191	5	13,470
Shelby	44	155	1,785	Saline	47	10	3,115	Marion	237	682	8,169
Sioux	41	108	1,660	Scott	13	5	585	Marshall	176	31	11,988
Story	80	65	4,593	Sedgwick	631	1,835	3,906	Martin	10	40	110
Tama	68	96	3,869	Seward	15	60	.....	Mason	7	18	230
Taylor	58	58	4,005	Shawnee	371	534	20,728	Meade	160	50	10,486
Union	42	.....	3,615	Sheridan	1	.....	50	Menifee	148	.....	11,282
Van Buren	116	2	9,112	Sherman	30	.....	2,400	Mercer	151	667	3,156
Wapello	53	.....	4,338	Smith	178	516	6,484	Metcalfe	269	143	18,894
Warren	95	26	6,393	Stafford	26	88	.....	Monroe	236	21	16,632
Washington	72	41	5,436	Sumner	728	2,263	790	Montgomery	17	58	100
Wayne	66	14	5,099	Thomas	10	.....	220	Morgan	381	668	21,470
Webster	109	92	6,338	Trego	6	.....	480	Muhlenberg	242	80	17,385
Winnebago	15	23	396	Wabaussee	101	75	6,235	Nelson	85	170	3,912
Winneshiek	64	.....	5,454	Washington	150	.....	12,615	Nicholas	59	6	3,851
Woodbury	98	44	5,020	Wichita	10	.....	800	Ohio	627	16	48,979
Worth	19	.....	1,319	Wilson	217	675	6,332	Oldham	52	258	677
Wright	21	4	1,582	Woodson	324	572	12,112	Owen	34	103	1,530
				Wyandotte	39	.....	2,495	Owsley	176	39	11,573
Kansas			20,689	31,207	785,787	Kentucky			21,982	22,601	1,277,206
Allen	201	6	14,693	Adair	502	327	23,264	Pendleton	94	77	5,499
Anderson	132	23	6,518	Allen	451	308	22,512	Perry	113	6	7,508
Atchison	227	.....	14,864	Anderson	183	682	2,450	Pike	314	45	21,841
Barton	352	2,466	20	Ballard	87	91	2,611	Powell	85	.....	5,657
Bourbon	225	272	8,352	Bath	483	1,085	23,333	Pulaski	451	460	25,123
Brown	228	6	10,795	Bell	114	66	6,606	Robertson	35	14	2,195
Butler	490	86	32,175	Boone	79	14	5,665	Rockcastle	89	300	855
Chase	270	207	10,366	Boonville	18	1	1,939	Rowan	78	257	3,325
Chautauquan	682	.....	23,433	Bourbon	43	290	170	Russell	196	230	13,007
Cherokee	292	170	11,964	Boyle	56	6	3,703	Scott	40	26	2,021
Cheyenne	15	.....	470	Bracken	201	528	1,838	Shelby	113	567	2,333
Clark	23	.....	0,158	Breathitt	32	116	1,452	Simpson	100	225	5,144
Clay	157	14	10,686	Breckinridge	180	6	15,792	Spencer	188	787	6,903
Cloud	321	110	3,100	Bullitt	69	5	4,034	Taylor	131	7	8,841
Coffey	177	60	.....	Butler	449	4	34,673	Todd	108	133	6,693
Comanche	30	90	.....	Caldwell	136	5	9,194	Trigg	97	5	6,351
Cowley	1,840	3,843	7,823	Calloway	480	46	23,623	Trimble	211	1,214	1,715
Crawford	217	484	7,012	Campbell	133	5	8,585	Union	51	38	3,394
Decatur	31	20	1,882	Carlisle	91	39	5,173	Warren	498	579	30,518
Dickinson	26	.....	5,444	Carroll	100	461	620	Washington	269	606	10,039
Doniphan	82	.....	20,309	Carter	251	42	17,030	Wayne	231	198	14,600
Douglas	345	7	.....	Casey	385	515	16,120	Webster	94	2	6,087
Edwards	.....	.....	.....	Christian	104	228	9,343	Whitley	283	22	20,984
Elk	600	2,090	7,323	Clark	17	89	52	Wolfe	216	22	15,791
Ellis	6	.....	560	Clay	169	1	11,619	Woodford	45	24	2,441
Ellsworth	95	257	.....	Clinton	105	2	7,438	Louisiana			
Finney	21	50	48	Crittenden	315	256	19,630	Acadia	3	4	134
Ford	28	98	.....	Cumberland	100	40	6,908	Avoyelles	4	20	.....
Franklin	266	.....	15,924	Davless	215	72	16,502	Bienville	45	24	2,439
Geary	24	.....	1,164	Edmonson	263	59	19,972	Bossier	59	50	2,868
Gove	13	105	780	Elliott	152	298	7,188	Caddo	31	51	1,106
Graham	10	.....	30	Estill	71	13	5,281	Catahoula	47	162	85
Gray	10	.....	7,724	Fayette	103	590	500	Caldwell	1	.....	30
Greenwood	394	680	.....	Fleming	140	319	7,440	Cameron	6	25	160
Harper	20	40	.....	Floyd	68	.....	5,231	Catahoula	1	.....	58
Harvey	212	578	1,304	Franklin	55	234	1,356	Claborne	257	21	17,576
Haskell	4	.....	300	Fulton	42	39	2,148	Concordia	25	124	.....
Hodgeman	7	.....	21,409	Gallatin	24	10	1,409	De Soto	34	87	1,434
Jackon	418	61	38,867	Garrard	81	307	3,019	East Baton Rouge	6	53	33
Jefferson	577	14	8,075	Grant	57	127	2,101	East Carroll	4	12	.....
Jewell	182	632	7,151	Graves	324	372	21,527	East Feliciana	9	30	259
Johnson	106	15	850	Grayson	440	55	33,601	Grant	6	18	31
Kingman	44	151	10,672	Green	191	34	13,277	Jackson	25	27	941
Kiowa	5	.....	115,385	Greenup	917	897	62,887	Lincoln	26	40	1,581
Labette	442	962	1,060	Hancock	205	15	15,410	Madison	4	10	.....
Leavenworth	1,487	212	21,623	Hardin	497	1,028	28,500	Morehouse	1	4	642
Lincoln	127	111	21,623	Harlan	101	5	7,630	Natchitoches	43	163	.....
Linn	322	111	27,867	Harrison	58	71	3,634	Ouachita	35	43	1,305
Logan	8	34	1,117	Hart	532	310	30,465	Richland	19	.....	1,382
Lyon	333	228	10,081	Henderson	49	13	2,876	Sabine	3	8	148
McPherson	384	1,069	4,250	Henry	134	600	2,237	St. Landry	17	24	920
Marion	242	201	18,638	Hickman	39	52	2,269	Union	112	56	10,843
Marshall	167	388	1,023	Hopkins	206	45	15,564	Webster	89	99	4,504
Miami	383	150	9,507	Jackson	258	246	14,807	West Carroll	1	.....	40
Mitchell	102	354	.....					Winn	14	25	733
Montgomery	609	1,518	.....							

GENERAL TABLES.

TABLE 15.—ACREAGE, TONS SOLD, AND PRODUCTS, MADE ON FARMS, OF SUGAR CANE AND SORGHUM CANE, ACREAGE AND TONS SOLD OF BEETS GROWN FOR SUGAR, AND PRODUCTION OF MAPLE SIRUP AND SUGAR, IN 1899, BY COUNTIES—Continued.

B.—Sorghum Cane—Continued.

COUNTIES.	SORGHUM CANE AND PRODUCTS.			COUNTIES.	SORGHUM CANE AND PRODUCTS.			COUNTIES.	SORGHUM CANE AND PRODUCTS.		
	Acres.	Tons sold.	Gallons of sirup.		Acres.	Tons sold.	Gallons of sirup.		Acres.	Tons sold.	Gallons of sirup.
Maryland.....	63	104	4,058	Minnesota—Continued.				Missouri—Continued.			
Anne Arundel.....	1		61	Fodd.....	16		1,441	Boone.....	565	69	41,390
Caroline.....	8	19	635	Traverse.....	1		62	Buchanan.....	146	36	11,795
Frederick.....	2	3	85	Wabasha.....	3		220	Butler.....	119	39	8,476
Garrett.....	1		128	Wadena.....	3		160	Caldwell.....	171	21	12,664
Harford.....	1	2		Waseca.....	53		4,122	Callaway.....	614	459	38,525
Prince George.....	6		384	Washington.....	1		35	Camden.....	389	71	28,547
Queen Anne.....	14	40	974	Watsonwan.....	9	16	480	Cape Girardeau.....	192	15	15,621
Talbot.....	1	9		Winona.....	26	7	1,040	Carroll.....	317	886	19,469
Wicomico.....	16		1,285	Wright.....	200	17	15,802	Carter.....	71		6,274
Worcester.....	13	31	603	Yellow Medicine.....	4	18	57	Cass.....	440	500	20,612
Michigan.....	377	198	24,059	Mississippi.....	15,731	3,366	1,162,269	Cedar.....	472	715	22,238
Allegan.....	17	2	820	Adams.....	13	4	987	Chariton.....	725	805	38,314
Arenac.....	1		45	Alcorn.....	290	5	23,876	Christian.....	183	143	11,371
Barry.....	7		515	Amite.....	16	16	956	Clark.....	243	213	16,054
Berrien.....	26	21	1,849	Attala.....	476	435	33,652	Clay.....	171	33	13,235
Branch.....	11	1	539	Benton.....	266		20,387	Clinton.....	202	69	15,476
Calhoun.....	6	1	402	Bolivar.....	20	87	561	Cole.....	221	9	15,681
Cass.....	7	3	573	Calhoun.....	337	8	25,605	Cooper.....	384	47	28,086
Clinton.....	14	28	552	Carroll.....	538	36	43,030	Crawford.....	138	16	11,490
Daton.....	2	8	137	Chickasaw.....	394		28,340	Dade.....	206	148	11,388
Genesee.....	7		506	Choctaw.....	500	14	34,822	Dallas.....	286	68	21,503
Gratiot.....	7		532	Clathorne.....	187	66	12,681	Dayless.....	460	189	32,160
Hillsdale.....	38	54	2,112	Clarke.....	38	29	1,852	Dekalb.....	356	160	23,768
Ingham.....	1		16	Clay.....	197	17	12,625	Dent.....	311	4	21,728
Ionia.....	8		632	Coalhoma.....	13	60	174	Douglas.....	250	83	15,944
Isabella.....	4		261	Copiah.....	157	127	9,596	Dunklin.....	41	27	2,988
Jackson.....	8	15	613	Covington.....	3		255	Franklin.....	300	4	23,705
Kalamazoo.....	6		170	De Soto.....	302	40	22,790	Gasconade.....	95	2	7,247
Kent.....	1		23	Franklin.....	84	4	7,184	Gentry.....	258	90	20,371
Lenawee.....	79		6,364	Greene.....	1	5		Greene.....	311	218	21,007
Monroe.....	58		3,687	Grenada.....	269	8	21,334	Grundy.....	211	75	16,203
Montcalm.....	9	8	465	Hinds.....	489	22	30,894	Harrison.....	392		31,399
Muskegon.....	2		40	Holmes.....	271		22,688	Henry.....	440	670	17,014
Oceana.....	1		84	Iatawamba.....	396	31	31,824	Hickory.....	240		19,196
Oscoda.....	1		27	Jackson.....	6		425	Holt.....	111	231	3,600
Saginaw.....	1		40	Jasper.....	100		7,456	Howard.....	308	88	23,060
St. Joseph.....	23	25	1,030	Jefferson.....	172	100	9,831	Howell.....	342	217	22,793
Shiawassee.....	1		15	Jones.....	3		209	Iron.....	71	1	6,245
Tuscola.....	2		134	Kemper.....	165	36	19,271	Jackson.....	452	1,115	15,949
Van Buren.....	24	15	1,666	Lafayette.....	910		75,902	Jasper.....	229	327	11,266
Washtenaw.....	3		107	Lauderdale.....	161	8	9,501	Jefferson.....	249	15	19,563
Wayne.....	2		64	Lawrence.....	4		280	Johnson.....	862	1,084	45,654
Minnesota.....	2,283	1,232	157,605	Leake.....	89		7,801	Knox.....	220	115	13,995
Atkin.....	4		240	Lee.....	337	22	24,068	Laclede.....	294	119	18,858
Anoka.....	7		455	Leflore.....	12	8	540	Lafayette.....	321	238	20,433
Becker.....	1		5	Lincoln.....	43	42	1,794	Lawrence.....	362	466	18,936
Benton.....	5		391	Lowndes.....	316	187	29,789	Lewis.....	130	47	9,380
Blue Earth.....	98	59	6,573	Madison.....	478		35,619	Lincoln.....	152	16	11,945
Brown.....	52		4,023	Marshall.....	532	37	44,339	Linn.....	295	374	20,214
Carver.....	164	2	12,861	Monroe.....	616	271	40,083	Livingston.....	244	316	14,208
Cass.....	5		184	Montgomery.....	409	3	31,184	McDonald.....	378	59	26,700
Chippewa.....	1		15	Neshoba.....	53	18	9,056	Macon.....	507	347	39,450
Chisago.....	12	10	800	Newton.....	30		2,448	Madison.....	143	287	5,921
Cottonwood.....	1		30	Noxubee.....	317	479	17,328	Marles.....	276	110	18,221
Crow Wing.....	3		236	Oktibbeha.....	279		22,462	Marlon.....	126	28	10,045
Dakota.....	224	800	6,820	Panola.....	593	27	40,869	Mercer.....	322		23,607
Dodge.....	7		595	Pearl River.....	5		340	Miller.....	481	49	35,497
Douglas.....	22		1,542	Perry.....	1		20	Mississippi.....	80	19	3,301
Faribault.....	19		1,648	Prentiss.....	297	340	21,652	Moniteau.....	393	25	30,578
Fillmore.....	27	6	2,307	Quitman.....	45	7	3,526	Monroe.....	364	516	17,960
Freeborn.....	45		3,378	Rankin.....	91	24	7,033	Montgomery.....	212	23	18,300
Goodhue.....	84		5,937	Scott.....	18		1,514	Morgan.....	248	52	21,170
Hennepin.....	104		8,655	Sharkey.....	5	29	35	New Madrid.....	48	5	4,072
Houston.....	32	6	2,272	Simpson.....	9		511	Newton.....	303	141	19,404
Hubbard.....	1		10	Smith.....	21	6	1,407	Nodaway.....	168	52	13,105
Isanti.....	25	55	1,590	Sunflower.....	38		943	Oregon.....	241	41	17,372
Jackson.....	2	3	50	Tallahatchie.....	330	39	25,047	Osage.....	114	46	9,624
Kanabec.....	4		269	Tate.....	445	20	32,280	Ozark.....	306	555	9,542
Kandiyohi.....	27		958	Tippah.....	240	40	20,601	Pemiscot.....	10	30	535
Lesueur.....	148	3	10,549	Tishomingo.....	311	20	21,217	Perry.....	165	82	12,933
Lincoln.....	(1)		5	Tumien.....	40	200	36,382	Pettis.....	494	966	22,335
McLeod.....	158	11	13,151	Union.....	512	48	36,382	Phelps.....	187	61	13,780
Martin.....	19	83	621	Warren.....	102	98	6,155	Pike.....	185	25	13,865
Meeker.....	142	10	11,740	Washington.....	9	25	300	Platte.....	60	98	4,035
Millelacs.....	3		199	Wayne.....	21		1,389	Polk.....	357	679	11,340
Morrison.....	16		493	Webster.....	485		39,733	Pulaski.....	239	20	17,865
Mower.....	1		12	Wilkinson.....	55	22	3,477	Putnam.....	316	210	23,168
Nicollet.....	97		7,569	Winston.....	321	8	25,632	Rails.....	240	652	8,728
Olmsted.....	1		36	Yaobusha.....	498		34,775	Randolph.....	219	224	10,910
Ottertail.....	15		957	Yazoo.....	509	42	35,137	Ray.....	338	34	27,806
Pine.....	1		59	Missouri.....	30,997	22,166	1,990,987	Reynolds.....	126	42	9,872
Pope.....	1		77	Adair.....	318	295	19,183	Ripley.....	251	21	20,478
Redwood.....	7		500	Andrew.....	158	65	11,700	St. Charles.....	88	76	6,350
Renville.....	2		77	Aitchison.....	81	21	2,324	St. Clair.....	267	173	15,989
Rice.....	105	6	6,152	Audrain.....	264	118	16,124	St. Genevieve.....	156	197	14,723
Scott.....	84	10	6,475	Barry.....	465	321	33,817	St. Francois.....	126	197	6,723
Sherburne.....	7		502	Barton.....	271	251	33,223	St. Louis.....	24	4	1,856
Sibley.....	135		9,691	Bates.....	700	1,425	22,140	Saline.....	294	417	20,244
Stearns.....	42		3,313	Benton.....	477	55	37,661	Schuyler.....	144	8	11,360
Steele.....	7	20	152	Bollinger.....	227	84	17,035	Scotland.....	174	95	11,376
								Scott.....	57	33	4,729
								Shannon.....	225	4	17,297
								Shelby.....	310	86	22,738
								Stoddard.....	185	128	8,710
								Stone.....	274	34	19,118
								Sullivan.....	367	66	26,716

1 Less than 1 acre.

STATISTICS OF AGRICULTURE.

TABLE 15.—ACREAGE, TONS SOLD, AND PRODUCTS, MADE ON FARMS, OF SUGAR CANE AND SORGHUM CANE, ACREAGE AND TONS SOLD OF BEETS GROWN FOR SUGAR, AND PRODUCTION OF MAPLE SIRUP AND SUGAR, IN 1899, BY COUNTIES—Continued.

B.—Sorghum Cane—Continued.

COUNTIES.	SORGHUM CANE AND PRODUCTS.			COUNTIES.	SORGHUM CANE AND PRODUCTS.			COUNTIES.	SORGHUM CANE AND PRODUCTS.		
	Acres.	Tons sold.	Gallons of sirup.		Acres.	Tons sold.	Gallons of sirup.		Acres.	Tons sold.	Gallons of sirup.
Missouri—Continued.				Nevada	30		1,465	North Carolina—Continued.			
Taney	182	304	9,521	Lincoln	30		1,465	Northampton	135	79	8,451
Texas	405	543	18,818					Onslow	28	1	2,078
Vernon	851	910	36,888					Orange	190	8	12,224
Warren	92	14	6,160					Pumlico	20	26	1,321
Washington	216	4	17,089					Pasquotank	82		5,655
Wayne	307	254	20,992	New Jersey	7	1	450	Pender	67		4,208
Webster	301	80	24,481	Atlantic	2		150	Perquimans	106	40	7,534
Worth	170	22	12,279	Essex	5	1	300	Person	274	297	16,263
Wright	394	118	23,287					Pitt	149	49	11,791
								Polk	373	4	28,299
Montana	2		100					Randolph	321	246	19,999
								Richmond	103	2	6,989
Yellowstone	2		100					Robeson	261	7	20,737
								Rockingham	122	53	7,365
Nebraska	4,773	12,802	92,413					Rowan	145	3	9,623
								Rutherford	540	295	36,924
Adams	61	131	3,319					Sampson	351	45	27,553
Antelope	70	98	2,837	Donna Ana	4	24	70	Scotland	170	16	11,242
Boone	5		257	Eddy	18	74	362	Stanly	121	107	6,810
Boxbutte	2	2	10	Grant	7	2	481	Stokes	224	63	16,246
Boyd	17	66	300	Gundalup	11		263	Surry	241	27	18,472
Brown	3	15		Rio Arriba	9		1,175	Swain	223		17,417
Buffalo	40	183	986	San Juan	29	2	164	Transylvania	127	110	7,726
Burt	13		961	Santa Fe	2		257	Union	306	196	18,614
Butler	4	7	142	Sierra	4		40	Vance	188		13,904
Cass	33	79	1,742	Socorro	3	11		Wake	279	4	21,501
Cedar	6	10	229					Warren	225	14	17,853
Chase	28	120	400	New York	14		973	Washington	50	18	3,742
Cherry	2		100	Albany	2		130	Watauga	448		34,384
Clay	15	101	25	Allegany	1		25	Wayne	69	37	4,856
Colfax	70	226	3,301	Cayuga	4		367	Wilkes	589	2	42,277
Cuming	81	69	4,289	Eric	2		118	Wilson	59		4,689
Custer	33	32	1,374	Lewis	1		80	Yadkin	104	7	7,081
Dakota	17		1,635	Otsego	(1)		3	Yancey	228	244	15,000
Dawes	6	3	515	Wyoming	4		250				
Dawson	29	40	575					North Dakota	10	41	114
Dixon	12	3	951								
Dodge	160	313	2,621	North Carolina	20,227	5,980	1,419,570	Barnes	4	30	
Douglas	21	49	758	Alamance	213	95	16,146	Cayler	1		18
Dundy	87	140	211	Alexander	267	261	16,937	Dickey	2	10	
Fillmore	215	562	1,049	Alleghany	288	81	20,499	Grand Forks	1	1	10
Franklin	115	380	506	Anson	416	27	28,744	Richland	1		36
Frontier	44	81	40	Ashe	592	12	43,845	Towner	1		50
Furnas	32	41	645	Beaufort	28	31	1,377				
Gage	173	467	1,957	Bertie	35		2,786				
Gosper	10	18	180	Bladen	152	3	11,415				
Greecley	85	120	245	Brunswick	8		322				
Hall	103	359	1,140	Buncombe	637	145	46,272				
Hamilton	84	230	1,227	Burke	374	25	25,897				
Harlan	15	26	98	Calabrus	82	5	6,970				
Hayes	46	113	163	Caldwell	462	155	34,491				
Hitchcock	90	638		Camden	18		1,233				
Holt	176	800	1,180	Carteret	106	9	7,130				
Howard	42	17	1,343	Catawba	214	21	17,724				
Jefferson	445	1,274	7,690	Chatham	405		28,335				
Johnson	108	349	560	Cherokee	366	4	29,890				
Kearney	122	245	603	Chowan	15	2	840				
Keith	12	47	360	Clay	226	13	11,614				
Keyapaha	18		1,150	Cleveland	241	49	17,624				
Knox	11	67	171	Columbus	157	10	10,399				
Lancaster	145	335	3,040	Craven	102	11	6,772				
Lincoln	85	117	80	Cumberland	260	7	21,024				
Logan	4		94	Currituck	2						
Loup	1		96	Davidson	425	11	32,126				
Madison	79	154	3,131	Davie	116		8,281				
Merrick	32	81	590	Duplin	376	9	24,408				
Nance	20	78	186	Durham	213	763	7,482				
Nemaha	80	113	3,735	Edgecombe	144		12,361				
Nuckolls	101	187	976	Forsyth	153	10	12,100				
Otoe	97	268	2,406	Franklin	323	32	21,228				
Pawnee	32	117	635	Gaston	80		6,163				
Perkins	2	4		Gates	143	41	8,560				
Phelps	168	268		Graham	158	19	9,224				
Pierce	14	15	863	Granville	413	30	34,026				
Platte	25	59	940	Greene	123	1	8,402				
Polk	63	36	4,278	Gulford	201		15,487				
Redwillow	25	58	28	Halfax	229	352	12,173				
Richardson	19	27	1,397	Harnett	291	77	18,306				
Rock	7	18	293	Haywood	295	77	21,281				
Saline	158	229	7,100	Henderson	309	100	23,483				
Sarpy	89	94	1,280	Hertford	100		10,566				
Saunders	152	429	1,889	Iredell	129	4	22,732				
Seward	78	284	1,638	Jackson	396	121	15,207				
Sheridan	1	5		Johnston	218	140	20,304				
Sherman	72	91	1,090	Jones	291	124	15,804				
Sioux	4		265	Lenoir	27	12	1,804				
Stanton	33	153	1,104	Lincoln	86		5,408				
Thayer	85	624	1,085	McDowell	180	16	10,508				
Thurston	15	100	70	Macon	199		16,276				
Valley	32	39	3,690	Madison	283	26	20,989				
Washington	68	47	3,690	Martin	308	17	34,524				
Wayne	4		246	Mecklenburg	198	61	8,216				
Webster	200	580	1,812	Mitchell	207	17	11,185				
Wheeler	8		213	Montgomery	334	35	24,236				
York	69	277	587	Moore	221	30	17,524				
				Nash	304	42	23,219				
					164	83	12,646				

¹ Less than 1 acre.

GENERAL TABLES.

TABLE 15.—ACREAGE, TONS SOLD, AND PRODUCTS, MADE ON FARMS, OF SUGAR CANE AND SORGHUM CANE, ACREAGE AND TONS SOLD OF BEETS GROWN FOR SUGAR, AND PRODUCTION OF MAPLE SIRUP AND SUGAR, IN 1899, BY COUNTIES—Continued.

B.—Sorghum Cane—Continued.

COUNTIES.	SORGHUM CANE AND PRODUCTS.			COUNTIES.	SORGHUM CANE AND PRODUCTS.			COUNTIES.	SORGHUM CANE AND PRODUCTS.						
	Acres.	Tons sold.	Gallons of sirup.		Acres.	Tons sold.	Gallons of sirup.		Acres.	Tons sold.	Gallons of sirup.				
Ohio—Continued.				Pennsylvania—Continued.				Tennessee—Continued.							
Madison	1	4	.....	Luzerne	6	.....	460	Fentress	75	188	3,900		
Mahoning	10	5	723	Potter	2	.....	100	Franklin	942	69	25,781			
Marion	20	8	1,106	Snyder	1	.....	17	Gibson	712	476	39,828			
Medina	3	.....	250	Susquehanna	1	.....	50	Giles	850	2,079	40,536		
Melgs	125	74	7,601	Washington	22	8	1,147	Grabinger	162	11	11,810				
Mercer	147	8	9,006	Westmoreland	3	2	121	Greene	560	228	36,195				
Miami	50	9	2,804					Grundy	70	162	3,567				
Monroe	175	25	14,584	• South Carolina			7,250	3,580	478,190	Hamblen	171	104	11,922		
Montgomery	58	10	3,399	Abbeville	188	204	11,803	Hamilton	119	12	9,179				
Morgan	41	3	3,286	Alken	21	28	1,323	Hancock	196	92	11,837				
Morrow	13	4	744	Anderson	219	58	14,062	Hardeman	728	508	33,894				
Muskingum	35	18	2,145	Bamberg	11	4	731	Hardin	344	70	20,994				
Noble	110	10	7,579	Barnwell	33	.....	2,683	Hawkins	468	52	35,830			
Ottawa	35	1	2,363	Beaufort	33	24	1,845	Haywood	492	5	32,922				
Paulding	136	1	10,262	Berkeley	35	35	1,652	Henderson	401	39	32,904				
Perry	35	12	2,297	Cherokee	256	33	20,329	Henry	628	27	43,792				
Pickaway	16	3	1,054	Chester	214	478	3,456	Hickman	460	829	22,641				
Pike	65	1	4,919	Chesterfield	348	7	30,150	Houston	91	20	6,241				
Portage	1	4	.....	Clarendon	43	24	3,133	Humphreys	201	14	16,973			
Preble	88	2	5,783	Colleton	19	1	1,307	Jackson	627	25	47,011				
Putnam	162	186	8,124	Darlington	625	45	46,936	James	66	79	4,778				
Richland	10	.....	785	Edgefield	103	70	4,189	Jefferson	378	145	29,800			
Ross	44	16	3,014	Fairfield	292	355	11,840	Johnson	370	12	24,966				
Sandusky	47	.....	3,089	Flornce	233	45	16,017	Knox	411	9	32,415			
Scioto	188	7	10,722	Georgetown	33	.....	2,338	Lake	1	3	.....			
Seneca	24	6	1,488	Greenville	192	37	13,604	Lauderdale	237	95	16,914				
Shelby	75	3	4,942	Greenwood	238	327	11,356	Lawrence	104	259	5,454				
Stark	4	.....	289	Hampton	1	.....	130	Lewis	102	7	7,908		
Summit	7	5	437	Horry	118	37	6,284	Lincoln	363	477	23,605				
Trumbull	2	3	71	Kershaw	145	6	12,801	Loudon	169	214	9,141				
Tuscarawas	32	9	2,089	Lancaster	250	91	13,464	McMinn	341	20	20,802				
Union	38	41	2,060	Laurens	66	56	3,725	McNairy	470	37	32,448				
Van Wert	41	.....	2,519	Lexington	269	124	17,888	Macon	517	14	36,089			
Vinton	66	10	4,884	Marion	127	18	10,189	Madison	578	83	45,428				
Warren	9	40	294	Marlboro	518	139	39,393	Marion	151	34	10,248				
Washington	88	8	6,813	Newberry	252	104	17,645	Marshall	177	465	8,837				
Wayne	20	.....	1,559	Oconee	517	338	36,090	Mauzy	624	743	39,760			
Williams	62	2	4,162	Orangeburg	49	10	6,881	Melgs	218	.....	17,116			
Wood	37	10	2,130	Pickens	276	15	20,811	Monroe	365	13	27,142				
Wyandot	18	5	1,202	Richland	92	5	6,870	Montgomery	124	309	5,781				
Oklahoma			9,788	25,327	81,891	Saluda	278	40	13,780	Moore	181	329	8,250		
Beaver	23	93	.....	Spartanburg	238	84	17,158	Morgan	166	327	7,730			
Baldie	169	130	4,403	Sturter	288	592	11,782	Obion	149	57	9,161				
Canadian	183	418	2,460	Union	169	24	14,618	Overton	327	14	25,648				
Cleveland	307	525	10,938	Williamsburg	246	3	19,786	Perry	198	41	15,139				
Custer	352	507	3,092	York	273	232	18,141	Pickett	151	1	11,723				
Dewey	162	450	2,597	South Dakota			196	395	9,850	Polk	176	27	11,270		
Garfield	66	389	279	Bonhomme	28	175	46	Putnam	280	.....	22,789			
Grant	957	4,176	592	Brookings	1	75	75	Rhea	157	17	11,287				
Greer	1,671	3,356	326	Clay	26	3	2,144	Roane	296	46	22,258				
Kay	442	1,430	150	Davison	1	40	40	Robertson	49	91	2,689				
Kingfisher	409	988	2,286	Day	1	10	10	Rutherford	1,382	997	83,336				
Lincoln	226	392	9,713	Gregory	2	150	150	Scott	103	16	7,611				
Logan	170	389	5,030	Hamlin	4	20	.....	Sequatchie	65	11	3,882			
Noble	58	145	1,467	Hanson	3	3	155	Sevier	587	.....	44,976			
Oklahoma	115	240	6,508	Hughes	2	10	10	Shelby	254	512	12,581				
Pawnee	238	462	6,873	Hutchinson	32	45	1,067	Smith	644	630	41,367				
Payne	293	675	6,303	Hyde	10	80	80	Stewart	128	53	8,118				
Pottawatomie	184	332	8,171	Jerault	2	.....	150	Sullivan	291	44	22,908			
Roger Mills	40	112	.....	McCook	5	.....	400	Sumner	946	4,545	25,127		
Washita	1,242	2,704	2,908	Meade	3	180	180	Tipton	262	10	16,668				
Woods	920	2,320	7,275	Mitchell	2	14	15	Trousdale	76	169	4,339				
Woodward	50	108	471	Roberts	1	2	.....	Unicoi	90	.....	6,986		
Osage and Kaw ¹	1,273	3,906	150	Turner	6	3	447	Union	233	2	16,672				
Ponca and Oto ¹	300	1,000	.....	Union	52	29	4,201	Van Buren	20	105	.....			
Wichita, Kiowa, and Comanche ¹	26	80	.....	Yankton	15	11	779	Warren	424	162	30,408			
Oregon			39	11	2,473	Tennessee			31,364	21,886	2,047,655	Washington	228	214	14,813
Coos	(²)	.....	10	Anderson	272	39	22,126	Wayne	206	10	19,797			
Douglas	6	10	60	Bedford	303	847	12,500	Weakley	686	265	46,379				
Gilliam	1	.....	50	Benton	197	.....	15,785	Winter	403	10	25,786		
Grant	1	7	.....	Bledsoe	107	1	11,944	Williamson	380	248	28,497			
Jackson	22	.....	1,825	Blount	505	5	38,014	Wilson	615	613	41,648			
Josephine	2	126	Bradley	213	51	15,717	Texas			26,803	88,033	877,282		
Lane	5	.....	340	Campbell	168	49	11,284	Anderson	340	210	22,069			
Linn	1	.....	40	Cannon	377	407	25,077	Angelina	1	7	.....			
Yamhill	1	.....	22	Carroll	516	8	42,902	Aransas	1	17	.....			
Pennsylvania			105	21	6,514	Carter	250	57	4,869	Archert	11	55	185		
Adams	1	.....	47	Cheatham	47	125	1,536	Armstrong	9	.....	560		
Armstrong	7	.....	467	Chester	276	.....	22,020	Atascosa	17	.....	4,869	
Beaver	4	.....	82	Clabornie	322	1	21,079	Austin	228	710	6,931			
Clarion	4	.....	201	Clay	197	5	14,895	Bandera	251	612	6,519			
Fayette	5	10	348	Cocke	300	159	22,740	Bastrop	389	1,661	12,033				
Forest	1	.....	75	Coffee	343	480	21,589	Baylor	17	15	860			
Franklin	4	.....	289	Crockett	419	594	20,725	Bee	336	1,054	1,091			
Greene	40	.....	2,854	Cumberland	101	4	11,516	Bell	919	4,020	17,915			
Indiana	3	.....	226	Davidson	657	701	48,018	Bexar	294	1,190	3,668			
Jefferson	2	.....	51	Decatur	279	6	19,438	Blanco	351	282	1,574			
Lancaster	1	.....	14	Dekalb	533	131	34,195	Borden	33	130	641			
Lawrence	1	.....	15	Dickson	239	176	15,690	Bosque	548	1,894	6,716			
				Dyer	189	88	13,269	Bowie	169	79	7,029				
				Fayette	634	210	37,132	Brazoria	18	42	765				
								Brazos	157	453	4,073				
								Brewster	34	101	.....			
								Brown	639	3,809	6,299				
								Burleson	326	1,152	8,881				

¹Indian reservation.

²Less than 1 acre.

GENERAL TABLES.

TABLE 15.—ACREAGE, TONS SOLD, AND PRODUCTS, MADE ON FARMS, OF SUGAR CANE AND SORGHUM CANE, ACREAGE AND TONS SOLD OF BEETS GROWN FOR SUGAR, AND PRODUCTION OF MAPLE SIRUP AND SUGAR, IN 1899, BY COUNTIES—Continued.

B.—Sorghum Cane—Continued.

COUNTIES.	SORGHUM CANE AND PRODUCTS.			COUNTIES.	SORGHUM CANE AND PRODUCTS.			COUNTIES.	SORGHUM CANE AND PRODUCTS.		
	Acres.	Tons sold.	Gallons of sirup.		Acres.	Tons sold.	Gallons of sirup.		Acres.	Tons sold.	Gallons of sirup.
West Virginia.....	6,870	3,392	450,777	West Virginia—Continued.				Wisconsin—Continued.			
Barbour.....	141	4	9,209	Putnam.....	283	68	19,082	Fond du Lac.....	35	14	2,378
Boone.....	226	308	11,535	Raleigh.....	244		18,865	Grant.....	135	49	10,518
Braxton.....	390	4	20,830	Randolph.....	44		3,270	Green.....	41		3,177
Brooke.....	4		272	Ritchie.....	173	14	13,075	Green Lake.....	69	140	3,699
Cabell.....	256	87	17,890	Roane.....	425	2	28,858	Iowa.....	59		3,971
Calhoun.....	111	7	8,064	Summers.....	117	64	8,108	Jackson.....	21	2	1,491
Clay.....	189	449	6,902	Taylor.....			199	Jefferson.....	164	166	10,618
Doddridge.....	68	2	5,166	Tucker.....	12		821	Juneau.....	38		2,828
Fayette.....	90	156	5,028	Tyler.....	65		4,276	La Crosse.....	98	9	7,820
Gilmer.....	252	76	17,469	Upshur.....	121	4	7,934	Lafayette.....	45	97	2,033
Grant.....	24	6	1,514	Wayne.....	361	141	22,079	Manitowoc.....			158
Greenbrier.....	167	198	9,312	Webster.....	108	8	7,883	Marquette.....	87	2	6,662
Hampshire.....	1		18	Welzel.....	59	57	3,751	Monroe.....	82	10	5,181
Hardy.....	10		74	Wirt.....	146	3	9,267	Outagamie.....	57	7	4,258
Harrison.....	59		4,457	Wood.....	70	4	5,771	Ozaukee.....	2		97
Jackson.....	370		23,698	Wyoming.....	87	103	4,428	Pepin.....	35	5	2,095
Kanawha.....	269	294	16,021					Pierce.....	64	11	3,964
Lewis.....	134	5	10,545	Wisconsin.....	2,399	952	160,414	Polk.....	15	6	1,069
Lincoln.....	407	612	21,165	Adams.....	22	6	1,334	Portage.....	15		906
Logan.....	139	13	10,076	Barron.....	3		200	Racine.....	24	10	1,587
McDowell.....	38	100	1,142	Brown.....	(1)		6	Richland.....	66	8	5,282
Marion.....	15	35	718	Buffalo.....	20	2	1,301	Rock.....	43	10	3,340
Marshall.....	18		1,326	Burnett.....	2		125	St. Croix.....	15	8	877
Mason.....	238	148	16,558	Calumet.....	41	1	3,196	Sank.....	200	166	18,039
Mercer.....	132	99	9,449	Chippewa.....	3	4	101	Shawano.....	19	9	1,039
Mingo.....	72	15	5,505	Clark.....	1		37	Sheboygan.....	24	4	1,813
Monongalia.....	15		1,097	Columbia.....	78	16	5,162	Trempealeau.....	8	18	298
Monroe.....	122		8,726	Crawford.....	110		8,546	Vernon.....	137	4	8,832
Nicholas.....	432		31,083	Dane.....	216	97	13,659	Walworth.....	59		4,473
Ohio.....	5		354	Dodge.....	86	22	5,062	Washington.....	7	4	419
Pendleton.....	61		3,517	Dunn.....	6	9	263	Waukesha.....	35	11	2,425
Pleasants.....	82	291	1,359	Eau Claire.....	12		852	Waupaca.....	35	10	1,922
Pocahontas.....	27		2,123					Waushara.....	45		2,081
Preston.....	47	12	3,440					Whitebago.....	21	6	1,890
								Wood.....	4		257

C.—Sugar Beets.

COUNTIES.	Acres.	Tons sold.	COUNTIES.	Acres.	Tons sold.	COUNTIES.	Acres.	Tons sold.
Alameda.....	3,680	44,974	Bay.....	16,007	70,906	Brown.....	29	240
Colusa.....	506	5,320	Benzie.....	6	12	Carver.....	724	6,285
Contra Costa.....	524	3,688	Berrien.....	1,543	7,425	Dakota.....	72	6,652
Los Angeles.....	697	4,856	Calhoun.....	35	174	Dodge.....	1	3
Monterey.....	10,333	112,367	Cass.....	128	524	Freeborn.....	36	212
Orange.....	1,143	7,853	Clare.....	12	22	Goodhue.....	82	540
Sacramento.....	101	502	Clinton.....	78	463	Heanenph.....	115	750
San Benito.....	1,080	6,587	Crawford.....	2	7	Lesueur.....	59	685
San Bernardino.....	1,132	4,077	Eaton.....	204	774	McLeod.....	151	1,186
San Joaquin.....	423	2,537	Genesee.....	102	566	Meeker.....	2	12
San Luis Obispo.....	285	1,384	Gladwin.....	32	193	Morrison.....	(1)	1
Santa Barbara.....	2,424	11,388	Gratiot.....	1,551	11,587	Mower.....	5	47
Santa Clara.....	4,214	12,373	Hillsdale.....	14	58	Nicollet.....	18	154
Santa Cruz.....	2,769	41,553	Huron.....	1,007	6,237	Otertail.....	3	21
Solano.....	400	4,000	Ingham.....	100	604	Pine.....	1	2
Sonoma.....	580	5,600	Ionia.....	61	534	Ramsey.....	15	98
Ventura.....	10,899	87,476	Ioseo.....	182	878	Redwood.....	8	61
			Isabella.....	295	1,865	Renville.....	8	70
			Kalamazoo.....	398	2,709	Rice.....	21	172
			Kent.....	91	411	Scott.....	179	1,408
			Lapeer.....	407	2,947	Sibley.....	372	1,063
			Lehewee.....	7	43	Steele.....	19	228
			Livingston.....	(1)	3	Stevens.....	4	28
			Luce.....	6	41	Todd.....	3	6
			Macomb.....	924	6,311	Wabasha.....	9	34
			Manistee.....	3	15	Wadena.....	2	10
			Macosth.....	127	510	Wascosa.....	9	48
			Menominee.....	1	10	Winona.....	84	548
			Midland.....	599	3,020	Wright.....	21	194
			Missaukee.....	8	12			
			Monroe.....	195	1,443	Nebraska.....	8,662	62,470
			Montcalm.....	252	1,084	Adams.....	96	508
			Muskegon.....	1,289	1,287	Antelope.....	10	65
			Newaygo.....	101	440	Boone.....	30	225
			Oakland.....	1,218	6,905	Buffalo.....	157	1,354
			Oceana.....	110	637	Burt.....	5	5
			Ogemaw.....	113	216	Butler.....	86	828
			Oscoda.....	13	37	Cass.....	1	5
			Osego.....	30	154	Clay.....	29	178
			Ottawa.....	2,191	9,877	Cuming.....	151	1,301
			Saginaw.....	2,484	21,134	Dakota.....	2	23
			St. Clair.....	391	3,188	Dawson.....	43	250
			St. Joseph.....	820	2,209	Dixon.....	14	110
			Sanilac.....	62	242	Dodge.....	4,251	31,168
			Shiawassee.....	120	652	Douglas.....	89	747
			Tuscola.....	4,042	34,244	Fillmore.....	70	309
			Van Buren.....	824	2,627	Furnas.....	4	6
			Washtenaw.....	17	87	Hall.....	1,066	8,110
			Wayne.....	158	378	Howard.....	11	68
			Wexford.....	5	23	Johnson.....	2	20
			Minnesota.....	2,114	15,959	Kearney.....	55	285
			Anoka.....	5	33	Knox.....	1	7
			Blue Earth.....	57	373	Lancaster.....	21	163
						Lincoln.....	1	10

¹ Less than 1 acre.

TABLE 15.—ACREAGE, TONS SOLD, AND PRODUCTS, MADE ON FARMS, OF SUGAR CANE AND SORGHUM CANE, ACREAGE AND TONS SOLD OF BEETS GROWN FOR SUGAR, AND PRODUCTION OF MAPLE SIRUP AND SUGAR, IN 1899, BY COUNTIES—Continued.

C.—Sugar Beets—Continued.

COUNTIES.	Acres.	Tons sold.	COUNTIES.	Acres.	Tons sold.	COUNTIES.	Acres.	Tons sold.
Nebraska—Continued.			New York—Continued.			Texas.....		
Loup.....	1	10	Cayuga.....	7	55	.....	135	523
Madison.....	862	5,808	Chemung.....	58	521	El Paso.....	8	82
Merriek.....	561	4,235	Chenango.....	31	248	Ward.....	127	441
Nuckolls.....	45	32	Cortland.....	21	136	Utah.....		
Pierce.....	236	1,774	Herkimer.....	2	17	.....	7,546	85,914
Platte.....	284	1,713	Madison.....	67	258	Boxelder.....	241	2,121
Richardson.....	2	30	Monroe.....	1	4	Cache.....	184	1,468
Saline.....	2	13	Nassau.....	2	17	Davis.....	360	2,611
Sarpy.....	3	13	Oneida.....	63	511	Kane.....	1	3
Saunders.....	59	313	Onondaga.....	96	845	Morgan.....	15	96
Scotts Bluff.....	1	2	Ontario.....	161	819	Salt Lake.....	816	10,637
Seward.....	1	4	Orleans.....	17	90	Sanpete.....	17	111
Sherman.....	1	12	Oswego.....	20	90	Sevier.....	31	177
Stanton.....	324	2,033	Otsego.....	13	115	Tooele.....	1	8
Thayer.....	8	12	Rensselaer.....	12	165	Utah.....	3,541	44,510
Washington.....	27	380	St. Lawrence.....	8	46	Weber.....	2,339	24,172
Wayne.....	63	288	Schenectady.....	1	4	Washington.....		
Webster.....	2	13	Schoharie.....	16	75	.....	1,863	6,149
Nevada.....			Schuyler.....	12	138	Spokane.....	1,728	5,652
Washoe.....	2	2	Seneca.....	18	236	Walla Walla.....	1	2
New Mexico.....			Steuben.....	104	835	Whitman.....	184	495
Eddy.....	1,298	3,965	Sullivan.....	15	59	Wisconsin.....		
New York.....			Tioga.....	11	84	.....	34	233
Albany.....	8	41	Tompkins.....	12	87	Pierce.....	34	233
Broome.....	220	1,871	Wayne.....	968	7,828	Oregon.....		
			Yates.....	107	878	.....	2,510	14,462
			Oregon.....			Baker.....	1	3
						Union.....	2,497	14,424
						Wallowa.....	12	35

D.—Maple Sirup and Sugar.

COUNTIES.	Gallons of sirup.	Pounds of sugar.	COUNTIES.	Gallons of sirup.	Pounds of sugar.	COUNTIES.	Gallons of sirup.	Pounds of sugar.
Connecticut.....			Indiana—Continued.			Indiana—Continued.		
Hartford.....	128	960	Carroll.....	3,466	90	Steuven.....	8,832	9,210
Litchfield.....	717	2,400	Cass.....	3,251	80	Sullivan.....	847	550
New Haven.....	17	400	Clark.....	754	30	Switzerland.....	45	.....
New London.....	4	500	Clay.....	401	.....	Tippicanoe.....	943	.....
Tolland.....	.....	120	Clinton.....	2,050	.....	Tipton.....	735	.....
Windham.....	82	550	Crawford.....	348	.....	Union.....	1,895	.....
Illinois.....			Daviess.....	213	90	Vanderburg.....	38	.....
Bond.....	85	.....	Dearborn.....	1,196	.....	Vermillion.....	203	400
Brown.....	185	10	Decatur.....	406	.....	Vigo.....	298	.....
Cass.....	.....	40	Dekalb.....	8,023	3,670	Wabash.....	3,834	.....
Clark.....	104	.....	Delaware.....	1,643	.....	Warren.....	64	.....
Coles.....	556	.....	Dubois.....	187	.....	Washington.....	851	1,150
Crawford.....	40	.....	Elkhart.....	8,277	3,350	Wayne.....	4,261	.....
Cumberland.....	.....	.....	Fayette.....	1,969	.....	Wells.....	1,066	30
Douglas.....	17	50	Floyd.....	21	.....	Whitley.....	5,966	410
Edgar.....	77	40	Fontain.....	4,869	220	Iowa.....		
Edward.....	1,410	40	Franklin.....	1,469	.....	.....	2,662	2,320
Fulton.....	52	.....	Fulton.....	379	.....	Adams.....	30	.....
Hancock.....	402	220	Gibson.....	17	.....	Allamakee.....	25	130
Hardin.....	200	50	Grant.....	1,690	.....	Appanoose.....	.....	250
Iroquois.....	150	.....	Greene.....	358	.....	Blackhawk.....	30	.....
Jasper.....	80	50	Hamilton.....	1,770	.....	Calhoun.....	7	.....
Knox.....	125	50	Hancock.....	918	.....	Chickasaw.....	75	.....
Lake.....	.....	1,650	Hendricks.....	2,626	.....	Des Moines.....	273	50
Livingston.....	37	.....	Henry.....	4,442	150	Fayette.....	375	550
McDonough.....	789	300	Howard.....	2,628	.....	Floyd.....	20	.....
McLean.....	270	.....	Huntington.....	4,552	170	Henry.....	160	.....
Marion.....	25	.....	Jackson.....	40	.....	Humboldt.....	.....	70
Marshall.....	80	.....	Jay.....	1,026	.....	Jefferson.....	23	.....
Menard.....	25	.....	Jefferson.....	282	100	Johnson.....	10	.....
Mercer.....	190	620	Jennings.....	636	.....	Lee.....	180	50
Monroe.....	25	200	Johnson.....	235	30	Page.....	.....	50
Peoria.....	3	.....	Knox.....	6,923	860	Van Buren.....	1,140	.....
Platt.....	110	100	Kosciusko.....	2,656	3,580	Warren.....	30	.....
Pope.....	18	.....	Lagrange.....	59	.....	Wayne.....	209	.....
Putnam.....	15	120	Laporte.....	963	300	Winneshiek.....	75	1,140
Randolph.....	290	.....	Lawrence.....	6,600	20,500	Kansas.....		
St. Clair.....	4	.....	Madison.....	1,231	.....	.....	45	.....
Sangamon.....	75	.....	Marion.....	2,915	.....	Coffey.....	35	.....
Schuyler.....	155	.....	Marshall.....	3,021	1,120	Nemaha.....	10	.....
Shelby.....	448	10	Miami.....	3,099	.....	Kentucky.....		
Stephenson.....	140	70	Monroe.....	5,975	1,050	.....	2,367	2,340
Tazewell.....	34	200	Montgomery.....	7,454	.....	Adair.....	.....	50
Vermillion.....	495	.....	Morgan.....	1,549	.....	Allen.....	.....	170
White.....	2,056	360	Noble.....	3,318	500	Barren.....	.....	10
Whiteside.....	35	.....	Orange.....	1,713	540	Boyle.....	.....	55
Indiana.....			Owen.....	2,952	340	Crittenden.....	.....	10
Adams.....	178	.....	Parke.....	10,091	2,120	Fleming.....	.....	345
Allen.....	918	260	Perry.....	35	.....	Floyd.....	.....	800
Bartholomew.....	1,837	.....	Pike.....	310	100	Grayson.....	.....	50
Blackford.....	339	.....	Porter.....	778	.....	Harrison.....	.....	1,519
Boone.....	4,497	220	Posey.....	188	.....	McLean.....	.....	75
Brown.....	31	.....	Putnam.....	5,591	.....	Marshall.....	.....	12
			Randolph.....	1,420	10	Monroe.....	.....	20
			Rush.....	7,343	.....	Montgomery.....	.....	100
			St. Joseph.....	3,222	520			
			Shelby.....	2,432	.....		
			Spencer.....	10	.....		
			Starke.....	8	.....		

GENERAL TABLES.

TABLE 15.—ACREAGE, TONS SOLD, AND PRODUCTS, MADE ON FARMS, OF SUGAR CANE AND SORGHUM CANE, ACREAGE AND TONS SOLD OF BEETS GROWN FOR SUGAR, AND PRODUCTION OF MAPLE SIRUP AND SUGAR, IN 1899, BY COUNTIES—Continued.

D.—Maple Sirup and Sugar—Continued.

COUNTIES.	Gallons of sirup.	Pounds of sugar.	COUNTIES.	Gallons of sirup.	Pounds of sugar.	COUNTIES.	Gallons of sirup.	Pounds of sugar.
Kentucky—Continued.			Michigan—Continued.			New York—Continued.		
Ohio	8		Shiawassee	2,687	3,360	Lewis	27,325	219,230
Oldham	40		Tuscola	979	2,790	Livingston	125	350
Pendleton	16		Van Buren	2,290	11,590	Madison	11,431	38,370
Pulaski	82	130	Washtenaw	1,955		Monroe	642	360
Taylor	10	50	Wayne	180	750	Montgomery	1,806	150
Trimble	15		Wexford	462	430	Niagara	28	
Maine			Minnesota			Oneida		
	16,021	5,500		1,079	29,580		9,339	5,800
Androscoggin	391		Brown	411		Onondaga	4,904	6,190
Aroostook	195	2,830	Carlton		50	Ontario	2,220	910
Cumberland	60		Carver	53		Orange	37	200
Franklin	1,455		Frederick	40	70	Orleans	889	810
Kennebec	2,271	200	Goodhue	15		Oswego	4,800	16,880
Knox	41		Hausa	97		Otsego	14,863	104,350
Oxford	2,474	1,240	Le Sueur	81		Rensselaer	1,351	13,940
Penobscot	1,952	390	Ottentail	65		St. Lawrence	17,976	680,890
Piscataquis	997		Scott	90		Saratoga	314	3,500
Sagadahoc	270		Todd	75		Schoharie	1,046	16,100
Somerset	4,698	610	Wabasha	16		Schuyler	24	
Waldo	1,066		Waseca	6		Seneca	117	50
York	244	230	Winona		200	Stenben	8,072	47,880
Maryland			Missouri			Sullivan		
	5,825	264,160		5,474	12,055		2,511	1,160
Allegany	10	100	Adair	175		Tioga	1,024	200
Calvert	90	300	Andrew	308	1,400	Tompkins	1,767	7,580
Garrett	5,725	263,760	Audrain		50	Ulster	3,156	9,100
Massachusetts			North Carolina			Warren		
	27,174	192,990					1,141	12,730
Berkshire	3,559	20,480	Bates	10		Washington	1,189	1,280
Franklin	11,170	60,830	Bollinger	121		Wayne	473	100
Hampden	1,193	16,650	Boone	1,103	250	Wyoming	19,808	257,780
Hampshire	10,696	89,030	Buchanan	9		Yates	30	
Middlesex	300	6,000	Callaway	405	120	Ohio		
Worcester	340		Cape Girardeau	8	40		923,510	613,990
Michigan			Carroll			Adams		
	82,997	302,715		40			636	5,230
Allegan	4,063	18,090	Clark	86		Allen	2,388	170
Antrim	995		Daviess	25	30	Ashland	22,466	52,250
Barry	4,615	51,580	Douglas		50	Ashtabula	59,665	94,690
Benzie	125		Howard		1,900	Athens	100	
Berrien	2,112	13,170	Iron		20	Aughize	2,311	
Branch	1,739	7,620	Lewis	68	310	Belmont	1,504	250
Calhoun	227	600	Lincoln	25	20	Butler	365	
Cass	2,574	1,640	Madison	231	3,250	Carroll	160	30
Charlevoix	350		Marion	300	160	Champaign	6,934	4,180
Cheboygan	167		Mercer	25		Clermont	340	
Clare	138	20	Moniteau	100	50	Clinton	10,151	1,250
Clinton	4,016	5,900	Monroe	466	20	Columbiana	16,600	760
Crawford	55		Montgomery	30	55	Coshocton	222	
Delta	162	100	Pike	107	530	Crawford	6,385	1,300
Eaton	11,537	79,940	Putnam	1,080	2,470	Cuyahoga	17,249	7,930
Emmet	788		Rails	433	540	Darke	2,207	420
Genesee	1,767	160	Randolph	25	150	Defiance	2,435	80
Gladwin	15		St. Charles	6		Delaware	6,567	200
Grand Traverse	499		Vernon	10		Erle	2,302	1,300
Grafton	1,460	2,310	Warren	45	280	Fairfield	1,672	140
Hillsdale	7,813	29,690	Washington	187	320	Fayette	262	
Houghton	60		Wayne	12	10	Franklin	385	100
Ingham	3,150	5,880	Wright	34		Fulton	271	
Ionia	2,009	17,480	New Hampshire			Gallia	91	30
Iron	37	70		41,588	441,870	Geauga	104,697	154,280
Isabella	354		Belknap	2,570	6,480	Greene	7,705	1,620
Jackson	100		Carroll	4,756	6,640	Guernsey	12	
Kalamazoo	157	70	Cheshire	2,708	87,190	Hamilton	402	100
Kalkaska	105		Coos	4,282	130,320	Hancock	6,957	40
Kent	3,056	29,210	Grafton	7,058	103,970	Hardin	437	
Lake	215	460	Hillsboro	2,250	8,180	Harrison	648	
Lapeer	1,296	1,170	Merrimack	7,281	15,300	Henry	1,114	
Leelanaw	498	360	Rockingham	227		Highland	1,126	80
Lenawee	3,879	1,065	Stratford	116		Hocking	50	
Livingston		7,000	Sullivan	10,341	88,790	Holmes	2,198	880
Luce	18		New York			Huron	12,850	8,500
Mackinac	180	300		413,159	3,623,540	Jackson	230	
Macomb	461	310	Albany	262	60	Jefferson	716	
Manistee	897		Alegany	24,048	204,300	Knox	13,413	6,540
Marquette	15		Broome	2,102	16,590	Lake	6,710	9,950
Mason	352	100	Cattaraugus	44,402	461,700	Licking	17,042	5,770
Mecosta	283		Cayuga	3,495	7,460	Logan	60,015	80,480
Monroe	215		Chautauque	56,955	322,070	Lorain	17,702	43,500
Montcalm	313	540	Chemung	113	200	Madison	434	
Muskegon	1,354	910	Chemung	113	200	Mahoning	35,012	6,300
Newaygo	1,180	1,900	Chenango	16,276	232,060	Marion	1,084	
Oakland	1,089		Clinton	2,170	20,810	Medina	56,546	50,560
Oceana	2,566	1,240	Columbia	25		Mercer	2,070	
Ogemaw	60		Cortland	25,381	218,550	Miami	3,024	200
Oscoda	1,833	670	Delaware	31,802	170,040	Montgomery	2,655	
Ottawa	2,568	4,290	Erle	13,880	81,800	Morrow	24,222	10,750
Presque Isle	10		Essex	987	33,980	Muskingum	36	
Saginaw	102		Franklin	4,020	96,380	Noble	108	
St. Clair	454		Fulton	1,514	240	Paulding	161	
St. Joseph	3		Genesee	9,023	6,980	Perry	4,386	50
Sanilac	288	150	Greene	6,024	82,840	Pickaway	246	1,000
Schoolcraft	150		Hamilton	293	4,090	Pike	100	
			Herkimer	6,339	4,230	Portage	147,839	15,560
			Jefferson	29,627	213,270	Preble	3,676	
						Putnam	1,541	20

¹Indian reservation.

TABLE 15.—ACREAGE, TONS SOLD, AND PRODUCTS, MADE ON FARMS, OF SUGAR CANE AND SORGHUM CANE, ACREAGE AND TONS SOLD OF BEETS GROWN FOR SUGAR, AND PRODUCTION OF MAPLE SIRUP AND SUGAR, IN 1899, BY COUNTIES—Continued.

D.—Maple Sirup and Sugar—Continued.

COUNTIES.	Gallons of sirup.	Pounds of sugar.	COUNTIES.	Gallons of sirup.	Pounds of sugar.	COUNTIES.	Gallons of sirup.	Pounds of sugar.
Ohio—Continued.			Tennessee—Continued.			West Virginia—Continued.		
Richland.....	21,590	9,520	Cannon.....		10	Lewis.....	35	100
Ross.....	1,302		Clay.....		50	Logan.....	13	
Sandusky.....	1,723		Hamblen.....	5	310	Marion.....	247	80
Seneca.....	5,491	800	Hancock.....	10	100	Mercer.....	6	30
Shelby.....	713	100	Overton.....	7		Monongalia.....	1,185	1,420
Stark.....	5,791		Robertson.....	3	20	Monroe.....	482	440
Summit.....	9,073	8,090	Seyler.....	22		Nicholas.....	1,007	6,630
Trumbull.....	63,489	17,130	Sullivan.....	79	420	Pendleton.....	1,696	34,770
Tuscarawas.....	830		Union.....	20	50	Pocahontas.....	2,348	16,530
Union.....	8,273	7,240	Washington.....	25		Preston.....	1,409	4,230
Van Wert.....	133					Raleigh.....		100
Warren.....	1,739		Vermont.....	160,918	4,779,870	Randolph.....	472	4,980
Wayne.....	8,226	3,560	Addison.....	1,255	166,170	Ritchie.....	1	
Williams.....	7,889	1,710	Bennington.....	20,564	69,850	Roane.....	5	130
Wood.....	841		Caledonia.....	2,279	580,140	Summers.....	15	
Wyandot.....	1,813	60	Chittenden.....	14,378	277,560	Tucker.....	20	
Pennsylvania.....			Essex.....	2,625	113,570	Upshur.....	209	500
Allegheny.....	68		Franklin.....	15,908	918,000	Webster.....	462	790
Armstrong.....	273		Grand Isle.....	90	1,020	Wirt.....	7	
Beaver.....	35		Lamolle.....	4,460	470,210	Wisconsin.....		
Bedford.....	755	8,240	Orange.....	6,007	197,240	Ashland.....	157	
Bradford.....	6,879	44,280	Orleans.....	4,683	992,690	Brown.....	70	60
Butler.....	827		Rutland.....	24,463	129,020	Buffalo.....	121	
Cambria.....	2,926	4,450	Washington.....	6,094	873,240	Calumet.....	117	
Clarion.....	36	450	Windham.....	49,588	277,310	Chippewa.....	466	450
Clearfield.....	35	70	Windsor.....	8,644	218,850	Clark.....	662	480
Columbia.....	221	2,110	Virginia.....	1,677	19,310	Crawford.....		150
Crawford.....	34,861	34,280	Augusta.....	5	460	Door.....	5	
Eric.....	22,326	70,570	Bland.....	119	320	Dunn.....	41	
Fayette.....	7,031	15,800	Henry.....	10		Etan Claire.....	10	
Greene.....	836	380	Highland.....	1,209	15,690	Florence.....	25	
Huntingdon.....	4		Russell.....	31	480	Fond du Lac.....	242	200
Indiana.....	531	370	Scott.....	27	240	Green.....	10	
Jefferson.....	157	80	Smyth.....	70	200	Jefferson.....		400
Lackawanna.....	968	160	Tazewell.....		200	Kewaunee.....	30	
Lawrence.....	1,069	240	Washington.....	86	1,620	Langlade.....	300	
Lebanon.....			Wise.....	35		Lincoln.....	245	200
Lycoming.....	4		Wythe.....	85	200	Manitowoc.....		200
McKean.....	3,237	4,840	Washington.....	126		Marathon.....	1,318	1,780
Mercer.....	11,094	670	Columbia.....	126		Milwaukee.....	40	
Plke.....	188		West Virginia.....	14,874	141,550	Monroe.....	20	
Potter.....	6,837	64,770	Barbour.....	1,094	5,940	Oconto.....	865	
Somerset.....	32,302	1,043,040	Braxton.....	40		Oneida.....	24	
Sullivan.....	684	7,630	Brooke.....	707	220	Outagamie.....	50	
Susquehanna.....	6,616	25,360	Fayette.....	94	40	Peplin.....	110	
Tioga.....	4,446	41,220	Gilmer.....	5	40	Pierce.....	219	
Union.....	16	290	Grant.....	1,987	61,330	Polk.....	3	20
Venango.....	1,050	240	Greenbrier.....	770	2,820	Richland.....	408	190
Warren.....	5,283	56,650	Hampshire.....	84	10	Sauk.....	28	
Washington.....	2,713	1,230	Hancock.....	24		Shawano.....	338	50
Wayne.....	4,068	1,840	Hardy.....	96		Sheboygan.....	85	
Westmoreland.....	1,657	250	Harrison.....	333	110	Trempealeau.....	43	
Wyoming.....	60		Jackson.....	35		Vernon.....	86	
Tennessee.....	171	1,160				Vilas.....	110	
Bedford.....		60				Washington.....	46	
Campbell.....		140				Waupaca.....	220	
						Wausara.....	21	
						Wood.....	90	